

180	185	190
Asp Ser Lys Asp Gly Val Ser Lys Ser Cys Arg Arg Ser Thr Phe Gln		
195	200	205
Gly Glu Lys Leu Gly Thr Thr Ser Ser Val Pro Val Leu Asn His Pro		
210	215	220
Gln Pro Val Ser Ser Pro Ile Gly Lys Glu Gly Gln Gly Thr Leu Arg		
225	230	235
Arg Gln Phe Ser Asp Ile Asp His Asp Leu Ile Glu Thr Asp Ala Lys		
245	250	255
Asp Gly Ala Ser Thr Pro Leu Arg Arg Gly Thr Thr Tyr Phe Gln Gly		
260	265	270
Glu Lys Leu Glu Thr Thr Ser Ser Phe Ser Ile Leu Gly His Pro His		
275	280	285
Leu Val Thr Ser Pro Val Asp Gln Glu Lys Gln Gly Thr Leu Arg Arg		
290	295	300
Glu Phe Ala Asp Thr Asp Glu Asp Leu Thr Glu Ser Val Trp Thr Thr		
305	310	315
Glu Asp Gly Arg Gln Thr Phe Leu Pro Pro Thr Tyr Ser Ile Ile Asp		
325	330	335
Glu Val Ser Gln Lys Gln Thr Ile Leu Ala Ser Arg Cys Ser Ala Glu		
340	345	350
Leu Pro Ile Leu Gln Ala Gly Val Gly Arg Asp Ser Arg Asp Lys Arg		
355	360	365
Glu Ser Ala Ser Asn Asn Val Asn Arg Leu Gln Gly Ser Gly Lys Thr		
370	375	380
Phe Pro Val Thr Asn Gly Ser Lys Glu Met Phe Lys Glu Glu Glu Ile		
385	390	395
Cys Thr Leu Gln Ser Gln Thr Arg Asn Asn Leu Thr Thr Ser Lys Ser		
405	410	415

Gly Ser Cys Leu Val Thr Asn Val Lys Arg Ser Thr Ser His Glu Thr  
 420 425 430  
 Glu Ile Phe Pro Pro Arg Ile Ser Val Pro Gln Thr Pro Lys Ser Ser  
 435 440 445  
 Tyr Leu Lys Asn Gln Met Leu Ser Gln Leu Lys Leu Val Gln Arg Lys  
 450 455 460  
 His Ser Gln Pro Gln Ser His Phe Thr Gly Met Ser Leu Ala Leu Asp  
 465 470 475 480  
 Asn Leu Ser Ser Lys Asp Leu Leu Thr His Ala Gln Gly Ile Ser Asn  
 485 490 495  
 Gln Asp Leu Gly Thr Ser Gln Val Leu His Val His Leu Glu Val Arg  
 500 505 510  
 Gly Ile Arg Val Ala Gln Gln Gln Glu His Arg Val Pro Thr His Val  
 515 520 525  
 Leu Gln Lys Cys Gln Val Lys Asn Phe Ser Pro Ala Ala Lys Arg Val  
 530 535 540  
 Ser Pro Leu Arg Pro Asn Gly Gly Glu Leu Gly Gly Gly Asp Ala Gly  
 545 550 555 560  
 Leu Gly Thr Ser Gln Leu Thr Arg Lys Ser Leu Pro Val His Asn Lys  
 565 570 575  
 Ala Ser Gly Glu Val Pro Gly Ser Lys Ser Ser Pro Thr Leu Lys Thr  
 580 585 590  
 Gln Pro Pro Ser Glu Asn Leu Phe Arg Lys Trp Met Gln Thr Leu Leu  
 595 600 605  
 Gln Trp Phe Asn Lys Pro Ser Ile Met Cys Glu Glu Gln Glu Ser Ser  
 610 615 620  
 Trp Glu Lys Gly Ser Ser Leu Ser Ser Ser Val Gln Asn Arg Ser Arg  
 625 630 635 640  
 Val Thr Ser Arg Ala Ala Phe Thr Gly Ala Thr Glu Ala Gln Lys Ile

	645		650		655										
Arg	Lys	Asp	Thr	Gly	Glu	Phe	Leu	Glu	Glu	Lys	Leu	Gly	His	Ser	His
	660		665		670										
Gly	Ile	Asp	Ile	Thr	Cys	Pro									
	675														

&lt;210&gt; 3824

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3824

Met	Thr	Thr	Lys	Thr	Met	Ser	Gln	Tyr	Cys	Gln	Gln	Leu	Asn	Gly	Leu
1				5					10					15	
Lys	Ala	Glu	Asn	Thr	Arg	Leu	Asn	Ser	Lys	Leu	Glu	Lys	Glu	Glu	His
			20					25						30	
His	Thr	Asp	Gly	Leu	Glu	Ala	Glu	Val	Glu	Phe	Phe	His	Ser	Arg	Leu
			35					40						45	
Ala	Ala	Ala	Ile	Asn	Glu	His	Asn	Glu	Ser	Leu	Glu	Thr	Lys	Asp	Leu
			50				55							60	
Glu	Leu	Val	Leu	Gln	Arg	Ala	His	Asn	Phe	Ser	Val	His	Lys	Lys	Ile
65					70					75					80
Ser	Ser	Thr	Val	Ser	Gln	Leu	Lys	Asp	Lys	Asn	Glu	Leu	Leu	Thr	Glu
					85					90					95
Gln	Phe	Ser	Lys	Ala	Gln	Met	Lys	Phe	Asn	Thr	Leu	Lys	Gly	Lys	Leu
			100						105					110	
His	Glu	Ile	Arg	Asp	Ala	Leu	Arg	Glu	Lys	Thr	Leu	Ala	Leu	Glu	Ser
			115						120					125	

Val Gln Met Asp Gln Arg Gln Ala Gln His Arg Ile Lys Glu Met Glu  
 130 135 140  
 Gln Ile His Pro Asn Glu Glu Thr Lys Gly Val Asp Pro Pro Glu Ser  
 145 150 155 160  
 Thr Thr Val

<210> 3825

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3825

Met Gln Ala Pro Phe Gly Ala Arg Asn Ala Arg Glu Ile Cys Leu Thr  
 1 5 10 15  
 Lys Arg Glu Pro Gly Gly Asn Ile Gln Asp Asn Gly Lys Lys Ala Ser  
 20 25 30  
 Lys Ile Phe Gln Lys Ser Leu Gly Gln Pro Phe Pro Ser Gln Ala Gln  
 35 40 45  
 Arg Pro Lys Ser Lys Glu Trp Phe Gln Gly Pro Gly Leu Glu His His  
 50 55 60  
 Cys Pro Val Gln Pro Trp Asp Ala Ala Pro Cys Ile Gln Thr Ala Thr  
 65 70 75 80  
 Ala Pro Ala Leu Ala Gln Arg Ala Ser Asp Thr Ala Trp Ala Thr Ala  
 85 90 95  
 Ser Lys Gly Ala Ser Cys Lys Pro Trp Trp Phe Pro Cys Gly Val Lys  
 100 105 110  
 Pro Lys Gly Ala Gln Asn Glu Ser Met Lys Glu Ala Trp Gln Leu Pro



115                      120                      125  
 Pro Arg Phe Gln Arg Leu Tyr Arg Lys Thr Cys Leu Leu Arg Gln Lys  
 130                      135                      140  
 Pro Ala Ala Gly Val Val Pro Leu  
 145                      150

<210> 3826

<211> 118

<212> PRT

<213> Homo sapiens

<400> 3826

Met Asp Met Asp Phe Pro Asn Thr His Ala Gln Ser Gln Val Ser Pro  
 1                      5                      10                      15  
 Arg Gln Pro Met Arg Met Ala Leu Gly Ser Leu Asp Phe Ser Ser Asp  
 20                      25                      30  
 Gly Arg Ala Leu Asn Pro Lys Val Leu Val Gly Gln Val Gly Gly Phe  
 35                      40                      45  
 Leu Val Arg Thr Arg Gly Gly Thr Ser Thr Gly Met Gly Asp Ala Gly  
 50                      55                      60  
 Ser Arg Cys Pro Ser Asp Ala Val Val Arg Thr Leu Leu Thr Gln Leu  
 65                      70                      75                      80  
 Gln Arg Arg Ala Arg Gly Thr Leu Ala His Asp Ala Pro Val Met Pro  
 85                      90                      95  
 Trp Leu Gly Arg Arg Ser Arg Ser Cys Ser Ala Glu His Gly Gly Arg  
 100                      105                      110  
 Trp Leu Thr Met Pro Gln  
 115

&lt;210&gt; 3827

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3827

Met Asp Gly Val Asp Ala Arg Val Ser Arg Arg Arg Gly Trp His Pro

1 5 10 15

His Glu Ala Ser His Thr Pro Met Gly Val Gly Ile Trp Arg His Ala

20 25 30

Trp Gly Gly Asp Ala Leu Trp Arg His Lys Ala Gly Ala Ser Arg Ala

35 40 45

Pro Arg Ser Trp Thr Gly Pro Gln Gly Val Leu Gln Leu Lys Arg Glu

50 55 60

Gly Lys Lys Ala His Glu Pro Val Ala Ser Gly Ala Asp Phe Pro Thr

65 70 75 80

Gln Gly Leu Ser Leu Cys Pro Trp Gly Pro Arg Asn Phe Pro Gly Asn

85 90 95

Leu His Leu Ala Gln Ile Tyr Pro Leu Ser Pro Pro Thr Leu Ala Val

100 105 110

Ala Ser Gln Glu Ala Pro Ala Thr Val Leu Lys Thr Lys Phe Ser Ser

115 120 125

Val Ile Pro Leu Cys Ser Ala Cys Val Ile His Glu Thr Gly Lys Ser

130 135 140

Pro Gly Leu Gln Arg Lys Lys

145 150

&lt;210&gt; 3828

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3828

Met Ala Thr Ala Ser Ala Phe Ser Val Arg Glu Pro Arg Ala Gln Pro

1 5 10 15

Asn Pro Ala Gly Gly Asn Ser Trp Val Pro Phe Pro Tyr Phe Arg Ser

20 25 30

Leu Gly Cys Ala Val Val Thr Ser Glu Pro Gly Cys Val Leu Thr Ser

35 40 45

Asp Lys Cys Leu Ser Leu Gly His Glu Arg Gly Val Gly Ser Ala Val

50 55 60

Gln Phe Gln Gly Gly Phe Trp Leu Ile Thr Phe Ser Trp Val Phe Ala

65 70 75 80

Glu Ser Gly Gly Asn Leu Cys Pro Pro Glu Thr Arg Asp Gln Gly Arg

85 90 95

Ser Tyr Gly Arg Gly Asp Ala Ala Arg Ala Val Ala Ser Ser Ala Ser

100 105 110

Ser Val Arg Val Arg Ser Arg Leu Ala Pro Gly Pro Pro Gly Ala Gln

115 120 125

Gly Leu Glu

130

&lt;210&gt; 3829

&lt;211&gt; 232

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3829

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Met Ala Asn Tyr Tyr Glu Val Leu Gly Val Gln Ala Ser Ala Ser Pro
  1              5              10              15
Glu Asp Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Arg Trp His Pro
          20              25              30
Asp Lys Asn Pro Asp Asn Lys Glu Glu Ala Glu Lys Lys Phe Lys Leu
          35              40              45
Val Ser Glu Ala Tyr Glu Val Leu Ser Asp Ser Lys Lys Arg Ser Leu
          50              55              60
Tyr Asp Arg Ala Gly Cys Asp Ser Trp Arg Ala Gly Gly Gly Ala Ser
          65              70              75              80
Thr Pro Tyr His Ser Pro Phe Asp Thr Gly Tyr Thr Phe Arg Asn Pro
          85              90              95
Glu Asp Ile Phe Arg Glu Phe Phe Gly Gly Leu Asp Pro Phe Ser Phe
          100             105             110
Glu Phe Trp Asp Ser Pro Phe Asn Ser Asp Arg Gly Gly Arg Gly His
          115             120             125
Gly Leu Arg Gly Ala Phe Ser Ala Gly Phe Gly Glu Phe Pro Ala Phe
          130             135             140
Met Glu Ala Phe Ser Ser Phe Asn Met Leu Gly Cys Ser Gly Gly Ser
          145             150             155             160
His Thr Thr Phe Ser Ser Thr Ser Phe Gly Gly Ser Ser Ser Gly Ser
          165             170             175
Ser Gly Phe Lys Ser Val Met Ser Ser Thr Glu Met Ile Asn Gly His
          180             185             190
Lys Val Thr Thr Lys Arg Ile Val Glu Asn Gly Gln Glu Arg Val Glu

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195                      200                      205  
 Val Glu Glu Asp Gly Gln Leu Lys Ser Val Thr Val Asn Gly Lys Glu  
 210                      215                      220  
 Gln Leu Lys Trp Met Asp Ser Lys  
 225                      230

<210> 3830

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3830

Met Ser Ile His Arg Ile Cys Arg His Pro Ser Lys Glu Ser Cys Thr  
 1                      5                      10                      15  
 Ala Tyr Ser Thr Asp Ile Leu Thr Lys Ala Ser Pro Ser Cys Leu Gly  
 20                      25                      30  
 Gly Val Gly Leu Phe Pro Tyr Ile Leu Ser Ser Leu Glu Thr Arg Gln  
 35                      40                      45  
 Val Asn Gln Leu Gly Val Lys Trp Pro Ser Ala Met Ser Ser Pro Gly  
 50                      55                      60  
 Glu Ser Ile Pro Leu Leu Pro Leu Phe Pro Cys Asn Trp Asn Trp Thr  
 65                      70                      75                      80  
 Thr Trp Cys Pro Arg Leu Ser Gly Val Lys Leu Pro Leu Gly Val Ser  
 85                      90                      95  
 Cys Ser Ser Val Thr Phe Ile Phe Ala Phe Leu Met Ser Pro Leu Ala  
 100                      105                      110  
 Val Leu Ile Leu Leu Leu Gln  
 115

&lt;210&gt; 3831

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3831

Met Gly Glu Asp Phe Met Thr Lys Thr Pro Lys Ala Met Ala Thr Lys

1 5 10 15

Ala Lys Ile Asp Lys Trp His Leu Ile Lys Leu Lys Ser Phe Cys Thr

20 25 30

Ala Lys Glu Thr Thr Ile Arg Met Asn Arg Gln Pro Thr Glu Trp Glu

35 40 45

Lys Ile Phe Ala Ile Tyr Pro Ser Asp Lys Gly Leu Ile Ser Arg Ile

50 55 60

Cys Lys Glu Leu Lys Gln Ile Tyr Lys Ile Lys Ser Asn Asn Ser Ile

65 70 75 80

Asn Lys Trp Ala Lys Asp Met Asn Arg His Phe Ser Lys Glu Asp Ile

85 90 95

Tyr Ala Ala Lys Arg His Met Lys Glu Cys Ser Ser Ser Leu Ala Ile

100 105 110

Arg Glu Met Gln Ile Lys Thr Thr Val Arg Tyr Tyr Leu Thr Pro Val

115 120 125

Arg Met Ala Ile Ile Lys Lys Ser Gly Asn Asn Arg Cys Trp Lys Gly

130 135 140

Tyr Gly Glu Ile Gly Thr Leu Leu His Cys Trp Trp Asp Cys Lys Leu

145 150 155 160

Val Gln Pro Leu Trp Lys Thr Val Trp Arg Phe Leu Lys Asp Leu Glu

	165		170		175										
Leu	Glu	Ile	Pro	Phe	Asp	Pro	Ala	Ile	Pro	Leu	Leu	Gly	Ile	Tyr	Pro
	180		185		190										
Lys	Asp	Tyr	Lys	Ser	Cys	Cys	Tyr	Lys	Asp	Thr	Cys	Thr	Arg	Lys	Phe
	195		200		205										
Ile	Leu	Ala	Leu	Leu	Thr	Ile	Ala	Lys	Thr	Trp	Asn	Gln	Pro	Lys	Cys
	210		215		220										
Pro	Ser	Met	Ile	Asp	Trp	Ile	Lys	Lys	Met	Trp	His	Met	Tyr	Thr	Ile
	225		230		235										240
Glu	Tyr	Tyr	Ala	Ala	Ile	Lys	Arg	Met	Ser	Ser	Cys	Pro	Leu		
	245		250												

&lt;210&gt; 3832

&lt;211&gt; 1014

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3832

Met	Pro	Asn	Pro	Pro	Leu	Tyr	Tyr	Gln	Pro	Gly	Asn	Asp	Gln	Pro	Val
1				5					10					15	
Ser	Phe	Asn	Leu	Lys	Asn	Thr	Ser	Gln	Val	Ser	Leu	His	Arg	Ser	Glu
			20					25					30		
Thr	Ile	Ser	Leu	Gln	Thr	Trp	Cys	Ser	Cys	Val	Ala	Gly	Gln	Pro	Ile
		35					40					45			
Gln	Thr	Phe	Trp	Val	Ser	Glu	Trp	Ser	Thr	Met	Asn	Pro	Glu	Gln	Arg
		50				55					60				
His	His	Cys	Gln	Gln	Thr	Pro	Asn	Pro	Met	Ala	Leu	Ala	Leu	Pro	Ser
		65			70				75					80	

Pro Ala Leu Lys Ala Leu Ser Gly Pro His Pro Gln Ser Gly Gly Gln  
                     85                    90                    95  
 Asp Asn Asp Ser Gly Ser Asp Leu Gln Gln Lys Tyr Ser Gln Leu Phe  
                     100                    105                    110  
 Cys Gly Leu Pro Ser Leu His Ser Glu Ser Leu Val Ala Thr Phe Met  
                     115                    120                    125  
 Gly Ser Gln Gly Leu Pro Lys Ile Glu Asn Val Pro Lys Pro Pro Leu  
                     130                    135                    140  
 Lys Asp Pro Phe Leu Phe Asn Glu Leu Ser Phe Pro Gln Leu Leu Pro  
 145                    150                    155                    160  
 Lys Thr Ser Pro Gln Ser Ala Pro Pro Ser Ser Pro Leu Ser Pro Asn  
                     165                    170                    175  
 Trp Val Ser Pro Ser Asp His Gln Arg Ala Gln Ile Asn Val Pro Phe  
                     180                    185                    190  
 Leu Thr Leu Ala Glu Tyr Glu Ala Leu Glu Trp His Leu Leu Gln Arg  
                     195                    200                    205  
 Gln Leu Gln Leu Gln Trp Gly Trp Pro Ala Ala Leu Gln Arg Ser Gln  
                     210                    215                    220  
 His Thr Gln Cys Leu Met Gln His Glu Pro Cys Gly Lys Ala Gln Ser  
 225                    230                    235                    240  
 Pro Glu Thr Thr Thr Ala Ser Gln Thr Gly Lys Ser Ile Ser Val Leu  
                     245                    250                    255  
 Thr Arg Glu Leu Leu Phe Phe Pro Glu His Ala Arg Lys Leu Leu Glu  
                     260                    265                    270  
 Phe His Ile Gln Lys Gln Ser Ile His His Arg Trp Gly Leu Pro Gln  
                     275                    280                    285  
 Lys Ile Gln Gln Ser Ile Gln Leu Leu Leu Thr Ser Thr Asp Gln Gln  
                     290                    295                    300  
 Thr Val Ser Ser Ser Ser Thr Ala Leu Ala Asn Val Ser Ile Pro Gln



305                      310                      315                      320  
Pro Val Ala Leu Glu Ala Asn Gly Ala Cys Asp Val Leu Ser Pro Ile  
                         325                      330                      335  
Ala Ala Pro Val Ser Ile Pro Arg Pro His Leu Leu Thr Gln Val Lys  
                         340                      345                      350  
Ala Ile Leu Gln Ser His Ile Asp Ser Lys Cys Gly Gln Ile His Gln  
                         355                      360                      365  
Gly Lys Ile Pro Ala Cys Val His Arg Ser Trp Asp Cys Arg Ile Ser  
                         370                      375                      380  
Gly Val Leu Ala Val Ala Pro Phe Pro Cys Ile Pro Glu Ser Gln Phe  
385                      390                      395                      400  
Leu Glu Leu Gln Thr Ala Ser Asp Pro Asp Leu His His Lys Val Met  
                         405                      410                      415  
Pro Trp Met Pro Thr Ala Leu Asp Gln Gln Gln Gln Ala Leu Pro Gly  
                         420                      425                      430  
Thr Val Thr Glu His Pro Lys Leu Leu Arg Val Leu Ser Val Glu Ala  
                         435                      440                      445  
Ile Glu Lys Leu Glu Thr Thr Leu Arg His Lys His Leu Ala Phe Leu  
                         450                      455                      460  
Ser Gly Leu Pro Ala Leu Tyr Tyr Val Ala Leu Pro Arg Ala Leu Ala  
465                      470                      475                      480  
Pro Ala Val Thr Ser Gln Ser Val Ile Thr Glu Met Val Pro Ser Pro  
                         485                      490                      495  
Val Glu Ile Pro Ala Glu Pro Leu Ile Gln Met Val Ser Phe Glu Glu  
                         500                      505                      510  
Gln Cys Ile Ser Leu Gly Pro Cys Pro Gln Gly Asn Asn Glu Ser Cys  
                         515                      520                      525  
Thr Asp Val Ala Lys Glu Phe Gln Pro Ala Val Pro Val Lys Gly Thr  
                         530                      535                      540

Met Glu Thr Leu Pro Leu Glu Ser Gln Thr His Pro Thr Ser Pro His  
545 550 555 560  
Ser Leu Gln Thr His Ile Leu Thr Lys Leu Asn Phe His Leu Arg Lys  
565 570 575  
Lys Val Leu Glu Ile Gln Trp Gly Ile Pro Ile Arg Ala Arg Lys Ser  
580 585 590  
Arg Glu Gln Thr Val Ala Ala Pro Glu Asn Ile Ser Thr Gln Lys Ser  
595 600 605  
Leu Glu Ser Leu Asn His Gln Gly Glu Thr Leu Leu Gln Glu Leu Pro  
610 615 620  
Ile Pro Pro Asp Thr Leu Pro Ala Pro Asn Pro Glu Gly Val His Leu  
625 630 635 640  
Lys Glu Gln Leu Ala Asn Asp Leu Lys Ala Val Gln Gln Asn Gln Lys  
645 650 655  
Gln Ser Asn Ser Lys Ala Val Pro Gln Gly Ser Ala His Ser Val Ser  
660 665 670  
Lys Ile Ser Gln Pro Ile Gly Asp Met Thr Glu Ala His Met Pro Cys  
675 680 685  
Val Gln Val Glu Ala Asn Val Asn Lys Pro Ser Leu Glu Glu Pro Cys  
690 695 700  
Gly Pro Glu Pro Gln Ser Pro Ser Lys Ser Lys Asp Pro Ala His Val  
705 710 715 720  
Pro Met Leu Ala Glu Asn Arg Glu Asp Pro Glu Glu Thr Lys Ala Ala  
725 730 735  
Arg Asp Tyr Arg Glu Gly Asp Ala Gly Phe Gly Arg Ser Ser Thr Arg  
740 745 750  
Glu Glu Arg Arg Pro Ala Glu Asp Gln Arg Pro Ala Gly Met Leu Pro  
755 760 765  
Asn Lys Thr Pro Arg Gly Ser Trp Arg Trp Ser His Ser Phe His Leu

770 775 780  
Ala Asp Pro Cys Gln His Ser Pro Gln His His Pro Gln Leu Lys Leu  
785 790 795 800  
Pro Gln Leu Pro Pro Arg Val Pro Gly Glu Lys Glu Ser Glu Lys Asp  
805 810 815  
Leu Gln Asp Ser Gln Thr Lys Leu Thr Val Ile Leu Glu Pro Ala Thr  
820 825 830  
Ile Pro Glu Asn Ala Gln Thr Val Leu Pro Gln Ser Ser Gln Gly Gln  
835 840 845  
Pro Phe Leu Ser Gln Pro Thr Gln Ala Lys Pro Leu Gln Gly Gln Thr  
850 855 860  
Leu Gln Gly Gln Val Leu His Gly Leu Val Met Pro Val His Ala Gln  
865 870 875 880  
Lys Lys Pro Ser Leu Thr Glu Ser Ser Phe Arg Asn Lys Ile Lys Cys  
885 890 895  
Phe Leu Gln His Ile Asn Pro Lys Thr Lys Gly Lys Gly His Glu Asp  
900 905 910  
Ser Met Phe Ser Ala Ala Ala Lys Val Ala Lys Thr Arg Lys Glu Asn  
915 920 925  
Val Ala Lys Ser Leu Ala Pro Ala Lys Ser Pro Val Gly Arg Ser Lys  
930 935 940  
Thr Glu Lys Pro Thr Gly Cys Ser Lys Ala Gln Ser Arg Pro Ala Gln  
945 950 955 960  
Lys Leu Val Gly Pro Ala Phe Leu Asp Gly Pro Gln Ser Leu Asp Asp  
965 970 975  
Lys Leu Arg Leu His Ser Arg Gln Pro Gly Ser Ala Ser Ala Leu Gly  
980 985 990  
Tyr Pro Arg His Cys Pro Arg His Cys Pro Arg Glu Ala Cys Ala Asn  
995 1000 1005

Lys Pro Gly His Pro Thr

1010

<210> 3833

<211> 161

<212> PRT

<213> Homo sapiens

<400> 3833

Met Ala Ala Trp Thr Ala Ser His Trp Pro Val Lys Gly Ile Leu Lys

1 5 10 15

Asn Lys Thr Ser Thr Ala Ser Ser Met Val Ala Ser Ala Glu Gln Pro

20 25 30

Ser Gly Ser Val Glu Glu Glu Leu Ser Lys Lys Ser Gln Lys Trp Glu

35 40 45

Glu Met Asn Ile Leu Ala Thr Tyr His Pro Ala Asp Lys Asp Tyr Gly

50 55 60

Leu Met Lys Ile Val Glu Pro Ser Thr Pro Ser Cys Arg Lys Met Gly

65 70 75 80

Asp Gly Glu Asp Ala Cys Ser Gly Ile Glu Thr Thr Glu Ala Val Ala

85 90 95

Pro Asp Ile Leu Ala Lys Lys Leu Ala Val Ala Glu Gly Ser Asn Pro

100 105 110

Lys Tyr Arg Val Gln Glu Gln Glu Ser Ser Gly Glu Glu Ala Ser Asp

115 120 125

Leu Ser Pro Glu Glu Arg Glu Lys Arg Arg Gln Phe Gln Met Lys Arg

130 135 140

Lys Leu His Tyr Asn Glu Gly Leu Asn Ile Lys Leu Ala Arg Glu Leu

145                      150                      155                      160  
Ile

<210> 3834

<211> 275

<212> PRT

<213> Homo sapiens

<400> 3834

Met Leu Val Ala Gln Gln Ala Tyr Ser Thr Leu Val Pro Met Pro Leu  
1                      5                      10                      15  
Leu Val Ser Ser Ile Ser Glu Ile Gln Asn Gln Val Leu Glu Glu Ile  
20                      25                      30  
Gln Asn Leu Asn Cys Val Lys Glu Asn Ser Ala Thr Phe Ile Glu Arg  
35                      40                      45  
Lys Leu Ser Phe Glu Lys Lys Lys Pro Val Gln Ile Leu Pro Glu Met  
50                      55                      60  
Pro His Gln Thr Asp Ile His Arg Ser Lys Leu Leu Ser Thr Tyr Ser  
65                      70                      75                      80  
Ala Glu Glu Leu Tyr Gln Ala Lys Arg Lys Cys Asn Ala Thr Gln Glu  
85                      90                      95  
Tyr Asp Ile Asn Leu Leu Glu Gly Asp Leu Val Ala Val Ile Glu Gln  
100                      105                      110  
Lys Asp Pro Leu Gly Ser Thr Ser Arg Trp Leu Val Asp Thr Gly Asn  
115                      120                      125  
Val Lys Gly Tyr Val Tyr Ser Ser Phe Leu Lys Pro Tyr Asn Pro Ala  
130                      135                      140

Lys Met Gln Lys Val Asp Ala Glu Asn Arg Phe Cys Asp Asp Asp Phe  
 145                      150                      155                      160  
 Glu Asn Ile Ser Leu Phe Val Ser Ser Arg Pro Ala Ser Asp Ser Val  
                          165                      170                      175  
 Thr Gly Thr Ser Glu Ser Ser Ile Gly Asp Ser Ser Ser Ser Leu Ser  
                          180                      185                      190  
 Gly Thr Cys Gly Lys Phe Glu Thr Asn Gly Thr Asp Val Asp Ser Phe  
                          195                      200                      205  
 Gln Glu Val Asp Glu Gln Ile Phe Tyr Ala Val His Ala Phe Gln Ala  
                          210                      215                      220  
 Arg Ser Asp His Glu Leu Ser Leu Gln Glu Tyr Gln Arg Val His Ile  
 225                      230                      235                      240  
 Leu Arg Phe Cys Asp Leu Ser Gly Asn Lys Glu Trp Trp Leu Ala Glu  
                          245                      250                      255  
 Ala Gln Gly Gln Lys Gly Tyr Val Pro Ala Asn Tyr Leu Gly Lys Met  
                          260                      265                      270  
 Thr Tyr Ala  
                          275

<210> 3835

<211> 1551

<212> PRT

<213> Homo sapiens

<400> 3835

Met Ser Pro Ile Gly Asp Ala Phe Arg Asn Arg Leu Arg Met Phe Pro  
 1                      5                      10                      15  
 Ser Leu Ile Asn Cys Cys Thr Ile Asp Trp Phe Gln Ser Trp Pro Thr

20	25	30
Asp Ala Leu Glu Leu Val	Ala Asn Lys Phe Leu Glu Asp Val Glu Leu	
35	40	45
Asp Asp Asn Ile Arg Val	Glu Val Val Ser Met Cys Lys Tyr Phe Gln	
50	55	60
Glu Ser Val Lys Lys Leu	Ser Leu Asp Tyr Tyr Asn Lys Leu Arg Arg	
65	70	75
80		
His Asn Tyr Val Thr Pro Thr	Ser Tyr Leu Glu Leu Ile Leu Thr Phe	
85	90	95
Lys Thr Leu Leu Asn Ser Lys	Arg Gln Glu Val Ala Met Met Arg Asp	
100	105	110
Arg Tyr Leu Thr Gly Leu Gln	Lys Leu Asp Phe Ala Ala Ser Gln Val	
115	120	125
Ala Val Met Gln Arg Glu Leu	Thr Ala Leu Gln Pro Gln Leu Ile Leu	
130	135	140
Thr Ser Glu Glu Thr Ala Lys	Met Met Val Lys Ile Glu Ala Glu Thr	
145	150	155
160		
Arg Glu Ala Asp Gly Lys Lys	Leu Leu Val Gln Ala Asp Glu Lys Glu	
165	170	175
Ala Asn Val Ala Ala Ala Ile	Ala Gln Gly Ile Lys Asn Glu Cys Glu	
180	185	190
Gly Asp Leu Ala Glu Ala Met	Pro Ala Leu Glu Ala Ala Leu Ala Ala	
195	200	205
Leu Asp Thr Leu Asn Pro Ala	Asp Ile Ser Leu Val Lys Ser Met Gln	
210	215	220
Asn Pro Pro Gly Pro Val Lys	Leu Val Met Glu Ser Ile Cys Ile Met	
225	230	235
240		
Lys Gly Met Lys Pro Glu Arg	Lys Pro Asp Pro Ser Gly Ser Gly Lys	
245	250	255

Met Ile Glu Asp Tyr Trp Gly Val Ser Lys Lys Ile Leu Gly Asp Leu  
260 265 270  
Lys Phe Leu Glu Ser Leu Lys Thr Tyr Asp Lys Asp Asn Ile Pro Pro  
275 280 285  
Leu Thr Met Lys Arg Ile Arg Glu Arg Phe Ile Asn His Pro Glu Phe  
290 295 300  
Gln Pro Ala Val Ile Lys Asn Val Ser Ser Ala Cys Glu Gly Leu Cys  
305 310 315 320  
Lys Trp Val Arg Ala Met Glu Val Tyr Asp Arg Val Ala Lys Val Val  
325 330 335  
Ala Pro Lys Arg Glu Arg Leu Arg Glu Ala Glu Gly Lys Leu Ala Ala  
340 345 350  
Gln Met Gln Lys Leu Asn Gln Lys Arg Ala Glu Leu Lys Leu Val Val  
355 360 365  
Asp Arg Leu Gln Ala Leu Asn Asp Asp Phe Glu Glu Met Asn Thr Lys  
370 375 380  
Lys Lys Asp Leu Glu Glu Asn Ile Glu Ile Cys Ser Gln Lys Leu Val  
385 390 395 400  
Arg Ala Glu Lys Leu Ile Ser Gly Leu Gly Gly Glu Lys Asp Arg Trp  
405 410 415  
Thr Glu Ala Ala Arg Gln Leu Gly Ile Arg Tyr Thr Asn Leu Thr Gly  
420 425 430  
Asp Val Leu Leu Ser Ser Gly Thr Val Ala Tyr Leu Gly Ala Phe Thr  
435 440 445  
Val Asp Tyr Arg Val Gln Cys Gln Asn Gln Trp Leu Ala Glu Cys Lys  
450 455 460  
Asp Lys Val Ile Pro Gly Phe Ser Asp Phe Ser Leu Ser His Thr Leu  
465 470 475 480  
Gly Asp Pro Ile Lys Ile Arg Ala Trp Gln Ile Ala Gly Leu Pro Val



485	490	495
Asp Ser Phe Ser Ile Asp Asn Gly Ile Ile Val Ser Asn Ser Arg Arg		
500	505	510
Trp Ala Leu Met Ile Asp Pro His Gly Gln Ala Asn Lys Trp Ile Lys		
515	520	525
Asn Met Glu Lys Ala Asn Lys Leu Ala Val Ile Lys Phe Ser Asp Ser		
530	535	540
Asn Tyr Met Arg Met Leu Glu Asn Ala Leu Gln Leu Gly Thr Pro Val		
545	550	555
Leu Ile Glu Asn Ile Gly Glu Glu Leu Asp Ala Ser Ile Glu Pro Ile		
565	570	575
Leu Leu Lys Ala Thr Phe Lys Gln Gln Gly Val Glu Tyr Met Arg Leu		
580	585	590
Gly Glu Asn Ile Ile Glu Tyr Ser Arg Asp Phe Lys Leu Tyr Ile Thr		
595	600	605
Thr Arg Leu Arg Asn Pro His Tyr Leu Pro Glu Val Ala Val Lys Val		
610	615	620
Cys Leu Leu Asn Phe Met Ile Thr Pro Leu Gly Leu Gln Asp Gln Leu		
625	630	635
Leu Gly Ile Val Ala Ala Lys Glu Lys Pro Glu Leu Glu Glu Lys Lys		
645	650	655
Asn Gln Leu Ile Val Glu Ser Ala Lys Asn Lys Lys His Leu Lys Glu		
660	665	670
Ile Glu Asp Lys Ile Leu Glu Val Leu Ser Met Ser Lys Gly Asn Ile		
675	680	685
Leu Glu Asp Glu Thr Ala Ile Lys Val Leu Ser Ser Ser Lys Val Leu		
690	695	700
Ser Glu Glu Ile Ser Glu Lys Gln Lys Val Ala Ser Met Thr Glu Thr		
705	710	715
		720

Gln Ile Asp Glu Thr Arg Met Gly Tyr Lys Pro Val Ala Val His Ser  
725 730 735  
Ala Thr Ile Phe Phe Cys Ile Ser Asp Leu Ala Asn Ile Glu Pro Met  
740 745 750  
Tyr Gln Tyr Ser Leu Thr Trp Phe Ile Asn Leu Tyr Met His Ser Leu  
755 760 765  
Thr His Ser Thr Lys Ser Glu Glu Leu Asn Leu Arg Ile Lys Tyr Ile  
770 775 780  
Ile Asp His Phe Thr Leu Ser Ile Tyr Asn Asn Val Cys Arg Ser Leu  
785 790 795 800  
Phe Glu Lys Asp Lys Leu Leu Phe Ser Leu Leu Leu Thr Ile Gly Ile  
805 810 815  
Met Lys Gln Lys Lys Glu Ile Thr Glu Glu Val Trp Tyr Phe Leu Leu  
820 825 830  
Thr Gly Gly Ile Ala Leu Asp Asn Pro Tyr Pro Asn Pro Ala Pro Gln  
835 840 845  
Trp Leu Ser Glu Lys Ala Trp Ala Glu Ile Val Arg Ala Ser Ala Leu  
850 855 860  
Pro Lys Leu His Gly Leu Met Glu His Leu Glu Gln Asn Leu Gly Glu  
865 870 875 880  
Trp Lys Leu Ile Tyr Asp Ser Ala Trp Pro His Glu Glu Gln Leu Pro  
885 890 895  
Gly Ser Trp Lys Phe Ser Gln Gly Leu Glu Lys Met Val Ile Leu Arg  
900 905 910  
Cys Leu Arg Pro Asp Lys Met Val Pro Ala Val Arg Glu Phe Ile Ala  
915 920 925  
Glu His Met Gly Lys Leu Tyr Ile Glu Ala Pro Thr Phe Asp Leu Gln  
930 935 940  
Gly Ser Tyr Asn Asp Ser Ser Cys Cys Ala Pro Leu Ile Phe Val Leu

945                      950                      955                      960  
Ser Pro Ser Ala Asp Pro Met Ala Gly Leu Leu Lys Phe Ala Asp Asp  
                         965                      970                      975  
Leu Gly Met Gly Gly Thr Arg Thr Gln Thr Ile Phe Leu Gly Gln Gly  
                         980                      985                      990  
Gln Gly Pro Ile Ala Ala Lys Met Ile Asn Asn Ala Ile Lys Asp Gly  
                         995                      1000                      1005  
Thr Trp Val Val Leu Gln Asn Cys His Leu Ala Ala Ser Trp Met Pro  
                         1010                      1015                      1020  
Thr Leu Glu Lys Ile Cys Glu Glu Val Ile Val Pro Glu Ser Thr Asn  
1025                      1030                      1035                      1040  
Ala Arg Phe Arg Leu Trp Leu Thr Ser Tyr Pro Ser Glu Lys Phe Pro  
                         1045                      1050                      1055  
Val Ser Ile Leu Gln Asn Gly Ile Lys Met Thr Asn Glu Pro Pro Lys  
                         1060                      1065                      1070  
Gly Leu Arg Ala Asn Leu Leu Arg Ser Tyr Leu Asn Asp Pro Ile Ser  
                         1075                      1080                      1085  
Asp Pro Val Phe Phe Gln Ser Cys Ala Lys Ala Val Met Trp Gln Lys  
                         1090                      1095                      1100  
Met Leu Phe Gly Leu Cys Phe Phe His Ala Val Val Gln Glu Arg Arg  
1105                      1110                      1115                      1120  
Asn Phe Gly Pro Leu Gly Trp Asn Ile Pro Tyr Glu Phe Asn Glu Ser  
                         1125                      1130                      1135  
Asp Leu Arg Thr Ser Met Trp Gln Ile Gln Met Phe Leu Asn Asp Tyr  
                         1140                      1145                      1150  
Lys Glu Val Pro Phe Asp Ala Leu Thr Tyr Leu Thr Gly Glu Cys Asn  
                         1155                      1160                      1165  
Tyr Gly Gly Arg Val Thr Asp Asp Lys Asp Arg Arg Leu Leu Leu Ser  
                         1170                      1175                      1180

Leu Leu Ser Met Phe Tyr Cys Lys Glu Ile Glu Glu Asp Tyr Tyr Ser  
1185                      1190                      1195                      1200  
Leu Ala Pro Gly Asp Thr Tyr Tyr Ile Pro Pro His Gly Ser Tyr Gln  
                         1205                      1210                      1215  
Ser Tyr Ile Asp Tyr Leu Arg Asn Leu Pro Ile Thr Ala His Pro Glu  
                         1220                      1225                      1230  
Val Phe Gly Leu His Glu Asn Ala Asp Ile Thr Lys Asp Asn Gln Glu  
                         1235                      1240                      1245  
Thr Asn Gln Leu Phe Glu Gly Val Leu Leu Thr Leu Pro Arg Gln Ser  
1250                      1255                      1260  
Gly Gly Ser Gly Lys Ser Pro Gln Glu Val Val Glu Glu Leu Ala Gln  
1265                      1270                      1275                      1280  
Asp Ile Leu Ser Lys Leu Pro Arg Asp Phe Asp Leu Glu Glu Val Met  
                         1285                      1290                      1295  
Lys Leu Tyr Pro Val Val Tyr Glu Glu Ser Met Asn Thr Val Leu Arg  
                         1300                      1305                      1310  
Gln Glu Leu Ile Arg Phe Asn Arg Leu Thr Lys Val Val Arg Arg Ser  
                         1315                      1320                      1325  
Leu Ile Asn Leu Gly Arg Ala Ile Lys Gly Gln Val Leu Met Ser Ser  
1330                      1335                      1340  
Glu Leu Glu Glu Val Phe Asn Ser Met Leu Val Gly Lys Val Pro Ala  
1345                      1350                      1355                      1360  
Met Trp Ala Ala Lys Ser Tyr Pro Ser Leu Lys Pro Leu Gly Gly Tyr  
                         1365                      1370                      1375  
Val Ala Asp Leu Leu Ala Arg Leu Thr Phe Phe Gln Glu Trp Ile Asp  
                         1380                      1385                      1390  
Lys Gly Pro Pro Val Val Phe Trp Ile Ser Gly Phe Tyr Phe Thr Gln  
                         1395                      1400                      1405  
Ser Phe Leu Thr Gly Val Ser Gln Asn Tyr Ala Arg Lys Tyr Thr Ile

1410	1415	1420	
Pro Ile Asp His Ile Gly Phe Glu Phe Glu Val Thr Pro Gln Glu Thr			
1425	1430	1435	1440
Val Met Glu Asn Asn Pro Glu Asp Gly Ala Tyr Ile Lys Gly Leu Phe			
1445	1450	1455	
Leu Glu Gly Ala Arg Trp Asp Arg Lys Thr Met Gln Ile Gly Glu Ser			
1460	1465	1470	
Leu Pro Lys Ile Leu Tyr Asp Pro Leu Pro Ile Ile Trp Leu Lys Pro			
1475	1480	1485	
Gly Glu Ser Ala Met Phe Leu His Gln Asp Ile Tyr Val Cys Pro Val			
1490	1495	1500	
Tyr Lys Thr Ser Ala Arg Arg Gly Thr Leu Ser Thr Thr Gly His Ser			
1505	1510	1515	1520
Thr Asn Tyr Val Leu Ser Ile Glu Leu Pro Thr Asp Met Pro Gln Lys			
1525	1530	1535	
His Trp Ile Asn Arg Gly Val Ala Ser Leu Cys Gln Leu Asp Asn			
1540	1545	1550	

&lt;210&gt; 3836

&lt;211&gt; 416

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3836

Met Gln Gly Ala Pro Arg Ala Arg Phe Gly Ser Arg Thr Pro Pro Ala	
1 5 10 15	
Ala Ala Ala Ser Ser Ser Ser Pro Ser Cys Thr Pro Ala Thr Ser Gln	
20 25 30	

Gly His Leu Arg Thr Pro Ala Gln Pro Pro Pro Ala Ser Pro Ala Ala  
35 40 45  
Ser Ser Ser Ser Ser Phe Ala Ala Val Val Arg Tyr Gly Pro Gly Ala  
50 55 60  
Ala Ala Ala Ala Gly Thr Gly Gly Thr Gly Ser Asp Ser Ala Ser Leu  
65 70 75 80  
Glu Leu Ser Ala Glu Ser Arg Met Ile Leu Asp Ala Phe Ala Gln Gln  
85 90 95  
Cys Ser Arg Val Leu Ser Leu Leu Asn Cys Gly Gly Lys Leu Leu Asp  
100 105 110  
Ser Asn His Ser Gln Ser Met Ile Ser Cys Val Lys Gln Glu Gly Ser  
115 120 125  
Ser Tyr Asn Glu Arg Gln Glu His Cys His Ile Gly Lys Gly Val His  
130 135 140  
Ser Gln Thr Ser Asp Asn Val Asp Ile Glu Met Gln Tyr Met Gln Arg  
145 150 155 160  
Lys Gln Gln Thr Ser Ala Phe Leu Arg Val Phe Thr Asp Ser Leu Gln  
165 170 175  
Asn Tyr Leu Leu Ser Gly Ser Phe Pro Thr Pro Asn Pro Ser Ser Ala  
180 185 190  
Ser Glu Tyr Gly His Leu Ala Asp Val Asp Pro Leu Ser Thr Ser Pro  
195 200 205  
Val His Thr Leu Gly Gly Trp Thr Ser Pro Ala Thr Ser Glu Ser His  
210 215 220  
Gly His Pro Ser Ser Ser Thr Leu Pro Glu Glu Glu Glu Glu Glu Asp  
225 230 235 240  
Glu Glu Gly Tyr Cys Pro Arg Cys Gln Glu Leu Glu Gln Glu Val Ile  
245 250 255  
Ser Leu Gln Gln Glu Asn Glu Glu Leu Arg Arg Lys Leu Glu Ser Ile

260	265	270
Pro Val Pro Cys Gln Thr Val Leu Asp Tyr Leu Lys Met Val Leu Gln		
275	280	285
His His Asn Gln Leu Leu Ile Pro Gln Pro Ala Asp Gln Pro Thr Glu		
290	295	300
Gly Ser Lys Gln Leu Leu Asn Asn Tyr Pro Val Tyr Ile Thr Ser Lys		
305	310	315
Gln Trp Asp Glu Ala Val Asn Ser Ser Lys Lys Asp Gly Arg Arg Leu		
325	330	335
Leu Arg Tyr Leu Ile Arg Phe Val Phe Thr Thr Asp Glu Leu Lys Tyr		
340	345	350
Ser Cys Gly Leu Gly Lys Arg Lys Arg Ser Val Gln Ser Gly Glu Thr		
355	360	365
Gly Pro Glu Arg Arg Pro Leu Asp Pro Val Lys Val Thr Cys Leu Arg		
370	375	380
Gly Thr Ala Ser Phe Arg Ser Val Ser Pro Ser Val Ile Ser Phe His		
385	390	395
Arg Ile Gly Cys Gly Ser Pro Arg Thr Ser Val Gln Pro Ser Val Phe		
405	410	415

&lt;210&gt; 3837

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3837

Met Arg Asn Gln Ala Val Asn Val Ala Cys Arg Phe His Val Asp Val

1

5

10

15

Ser Phe Gln Ile Ser Gly Phe Asn Ile Cys Asp Ala Leu Gly Thr Cys  
20 25 30  
Gly Ser Ser Pro Leu Ser Phe Val Ser His Cys Pro Thr Gly Cys Gln  
35 40 45  
Arg Gly Cys Ala Met Ser Tyr Ser Gln Gln Thr Trp Met Arg Val Ser  
50 55 60  
Arg Thr Pro Asn Ser Pro Ser Ile Trp Cys Cys Gln Cys Cys Leu Gly  
65 70 75 80  
Arg Leu Met Gly Ser Pro Ser Cys His Pro Pro Val Gly Pro Thr Met  
85 90 95  
Gly Pro Arg Gly Ser Gly Arg Ala Pro Phe Thr Ile Met His Asp Phe  
100 105 110  
Val Cys Cys Leu Leu Ser Pro Gln Asp Pro Pro Gly Phe Trp Pro His  
115 120 125  
Met Phe Gln Pro Gly Pro Gly Leu Gly Thr Arg Glu Val Leu Gly Ser  
130 135 140  
Trp Cys Arg Leu Leu Pro Gly Leu Gly Glu Leu Leu Ala Ala Leu Ser  
145 150 155 160  
Ser Leu Leu Gly Asp Pro Gly Phe Cys Ser Gly Lys Val Pro Ile Pro  
165 170 175  
Leu Ile His Pro Ile Ser Ser Gly Thr Leu Trp Leu Ser  
180 185

&lt;210&gt; 3838

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 3838

Met Ala Leu Lys Phe Gln Gly Lys Tyr Asp Gln Ala Val His Gln Glu  
 1 5 10 15  
 Ala Gln Met Pro His Gly Gln Gly Asn Ser Phe Ser Arg Arg Pro Thr  
 20 25 30  
 Asp Phe Ser Cys Leu Gly Ser Glu Glu Ala Thr Lys Ile Cys Pro Ser  
 35 40 45  
 Thr Arg Leu Ser Gly Glu Met Ser Arg Leu His Phe His Gln Ser Leu  
 50 55 60  
 Ser Ser Ser Pro Thr Pro Gln Thr Thr Gly Arg Leu Gly Gly Ser Ser  
 65 70 75 80  
 Lys Phe Leu Val Ala Asp Ser Leu Val Val Ile Met Phe Gln Lys Leu  
 85 90 95  
 Lys Trp Glu Trp Lys Leu Ser Ser Phe Leu Tyr Ser Lys Asn Cys Leu  
 100 105 110  
 Gln His Ile Pro  
 115

&lt;210&gt; 3839

&lt;211&gt; 1264

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3839

Met Ser Leu Gln Arg Glu Pro Pro Arg Pro Glu Pro Pro Pro Phe  
 1 5 10 15  
 Pro Pro Leu Pro Leu Gln Pro Pro Pro Pro Arg Glu Ser Ala Ser Arg  
 20 25 30

Ala Glu Gln Pro Pro Arg Pro Pro Arg Glu Thr Val Arg Leu Glu Leu  
                   35                                  40                                  45  
 Val Leu Lys Asp Pro Thr Asp Glu Ser Cys Val Glu Phe Ser Tyr Pro  
                   50                                  55                                  60  
 Glu Leu Leu Leu Cys Gly Glu Gln Arg Lys Lys Leu Ile His Thr Glu  
                   65                                  70                                  75                                  80  
 Asp Pro Phe Asn Asp Glu His Gln Glu Arg Gln Glu Val Glu Met Leu  
                                   85                                  90                                  95  
 Ala Lys Lys Phe Glu Met Lys Tyr Gly Gly Lys Pro Arg Lys His Arg  
                                   100                                  105                                  110  
 Lys Asp Arg Leu Gln Asp Leu Ile Asp Ile Gly Phe Gly Tyr Asp Glu  
                                   115                                  120                                  125  
 Thr Asp Pro Phe Ile Asp Asn Ser Glu Ala Tyr Asp Glu Leu Val Pro  
                                   130                                  135                                  140  
 Ala Ser Leu Thr Thr Lys Tyr Gly Gly Phe Tyr Ile Asn Thr Gly Thr  
                                   145                                  150                                  155                                  160  
 Leu Gln Phe Arg Gln Ala Ser Asp Thr Glu Glu Asp Asp Ile Thr Asp  
                                   165                                  170                                  175  
 Asn Gln Lys His Lys Pro Pro Lys Val Pro Lys Ile Lys Glu Asp Asp  
                                   180                                  185                                  190  
 Ile Glu Met Lys Lys Arg Lys Arg Lys Glu Glu Gly Glu Lys Glu Lys  
                                   195                                  200                                  205  
 Lys Pro Arg Lys Lys Val Pro Lys Gln Leu Gly Val Val Ala Leu Asn  
                                   210                                  215                                  220  
 Ser His Lys Ser Glu Lys Lys Lys Lys Arg Tyr Lys Asp Ser Leu Ser  
                                   225                                  230                                  235                                  240  
 Leu Ala Ala Met Ile Arg Lys Phe Gln Lys Glu Lys Asp Ala Leu Lys  
                                   245                                  250                                  255  
 Lys Glu Ser Asn Pro Lys Val Pro Val Thr Leu Ser Thr Pro Ser Leu

260 265 270  
Asn Lys Pro Pro Cys Ala Ala Ala Ala Leu Gly Asn Asp Val Pro Asp  
275 280 285  
Leu Asn Leu Ser Ser Gly Asp Pro Asp Leu Pro Ile Phe Val Ser Thr  
290 295 300  
Asn Glu His Glu Leu Phe Gln Glu Ala Glu Asn Ala Leu Glu Met Leu  
305 310 315 320  
Asp Asp Phe Asp Phe Asp Arg Leu Leu Asp Ala Ala Ser Asp Gly Ser  
325 330 335  
Pro Leu Ser Glu Ser Gly Gly Glu Asn Gly Thr Thr Thr Gln Pro Thr  
340 345 350  
Tyr Thr Ser Gln Val Met Pro Lys Val Val Pro Thr Leu Pro Glu Gly  
355 360 365  
Leu Pro Val Leu Leu Glu Lys Arg Ile Glu Asp Leu Arg Val Ala Ala  
370 375 380  
Lys Leu Phe Asp Glu Glu Gly Arg Lys Lys Phe Phe Thr Gln Asp Met  
385 390 395 400  
Asn Asn Ile Leu Leu Asp Ile Glu Leu Gln Leu Gln Glu Leu Gly Pro  
405 410 415  
Val Ile Arg Ser Gly Val Tyr Ser His Leu Glu Ala Phe Val Pro Cys  
420 425 430  
Asn Lys Glu Thr Leu Val Lys Arg Leu Lys Lys Leu His Leu Asn Val  
435 440 445  
Gln Asp Asp Arg Leu Arg Glu Pro Leu Gln Lys Leu Lys Leu Ala Val  
450 455 460  
Ser Asn Val Met Pro Glu Gln Leu Phe Lys Tyr Gln Glu Asp Cys Gln  
465 470 475 480  
Ala Arg Ser Gln Ala Lys Cys Ala Lys Leu Gln Thr Asp Glu Glu Arg  
485 490 495

Glu Lys Asn Gly Ser Glu Glu Asp Asp Asp Glu Lys Pro Gly Lys Arg  
500 505 510  
Val Ile Gly Pro Arg Lys Lys Phe His Trp Asp Asp Thr Ile Arg Thr  
515 520 525  
Leu Leu Cys Asn Leu Val Glu Ile Lys Leu Gly Cys Tyr Glu Leu Glu  
530 535 540  
Pro Asn Lys Ser Gln Ser Ala Glu Asp Tyr Leu Lys Ser Phe Met Glu  
545 550 555 560  
Thr Glu Val Lys Pro Leu Trp Pro Lys Gly Trp Met Gln Ala Arg Met  
565 570 575  
Leu Phe Lys Glu Ser Arg Ser Val His Asn His Leu Thr Ser Ala Pro  
580 585 590  
Ala Lys Lys Lys Val Ile Pro Ala Pro Lys Pro Lys Val Lys Glu Val  
595 600 605  
Met Val Lys Thr Leu Pro Leu His Ser Phe Pro Thr Met Leu Lys Glu  
610 615 620  
Cys Ser Pro Lys Lys Asp Gln Lys Thr Pro Thr Ser Leu Val Ala Ser  
625 630 635 640  
Val Ser Gly Pro Pro Thr Ser Ser Ser Thr Ala Ala Ile Ala Ala Ala  
645 650 655  
Ser Ser Ser Ser Ala Pro Ala Gln Glu Thr Ile Cys Leu Asp Asp Ser  
660 665 670  
Leu Asp Glu Asp Leu Ser Phe His Ser Pro Ser Leu Asp Leu Val Ser  
675 680 685  
Glu Ala Leu Ala Val Ile Asn Asn Gly Asn Lys Gly Pro Pro Val Gly  
690 695 700  
Ser Arg Ile Ser Met Pro Thr Thr Lys Pro Arg Pro Gly Leu Arg Glu  
705 710 715 720  
Glu Lys Leu Ala Ser Ile Met Ser Lys Leu Pro Leu Ala Thr Pro Lys

725 730 735  
Lys Leu Asp Ser Thr Gln Thr Thr His Ser Ser Ser Leu Ile Ala Gly  
740 745 750  
His Thr Gly Pro Val Pro Lys Lys Pro Gln Asp Leu Ala His Thr Gly  
755 760 765  
Ile Ser Ser Gly Leu Ile Ala Gly Ser Ser Ile Gln Asn Pro Lys Val  
770 775 780  
Ser Leu Glu Pro Leu Pro Ala Arg Leu Leu Gln Gln Gly Leu Gln Arg  
785 790 795 800  
Ser Ser Gln Ile His Thr Ser Ser Ser Ser Gln Thr His Val Ser Ser  
805 810 815  
Ser Ser Gln Ala Gln Ile Ala Ala Ser Ser His Ala Leu Gly Thr Ser  
820 825 830  
Glu Ala Gln Asp Ala Ser Ser Leu Thr Gln Val Thr Lys Val His Gln  
835 840 845  
His Ser Ala Val Gln Gln Asn Tyr Val Ser Pro Leu Gln Ala Thr Ile  
850 855 860  
Ser Lys Ser Gln Thr Asn Pro Val Val Lys Leu Ser Asn Asn Pro Gln  
865 870 875 880  
Leu Ser Cys Ser Ser Ser Leu Ile Lys Thr Ser Asp Lys Pro Leu Met  
885 890 895  
Tyr Arg Leu Pro Leu Ser Thr Pro Ser Pro Gly Asn Gly Ser Gln Gly  
900 905 910  
Ser His Pro Leu Val Ser Arg Thr Val Pro Ser Thr Thr Thr Ser Ser  
915 920 925  
Asn Tyr Leu Ala Lys Ala Met Val Ser Gln Ile Ser Thr Gln Gly Phe  
930 935 940  
Lys Ser Pro Phe Ser Met Ala Ala Ser Pro Lys Leu Ala Ala Ser Pro  
945 950 955 960

Lys Pro Ala Thr Ser Pro Lys Pro Leu Pro Ser Pro Lys Pro Ser Ala  
965 970 975  
Ser Pro Lys Pro Ser Leu Ser Ala Lys Pro Ser Val Ser Thr Lys Leu  
980 985 990  
Ile Ser Lys Ser Asn Pro Thr Pro Lys Pro Thr Val Ser Pro Ser Ser  
995 1000 1005  
Ser Ser Pro Asn Ala Leu Val Ala Gln Gly Ser His Ser Ser Thr Asn  
1010 1015 1020  
Ser Pro Val His Lys Gln Pro Ser Gly Met Asn Ile Ser Arg Gln Ser  
1025 1030 1035 1040  
Pro Thr Leu Asn Leu Leu Pro Ser Ser Arg Thr Ser Gly Leu Pro Pro  
1045 1050 1055  
Thr Lys Asn Leu Gln Ala Pro Ser Lys Leu Thr Asn Ser Ser Ser Thr  
1060 1065 1070  
Gly Thr Val Gly Lys Asn Ser Leu Ser Gly Ile Ala Met Asn Val Pro  
1075 1080 1085  
Ala Ser Arg Gly Ser Asn Leu Asn Ser Ser Gly Ala Asn Arg Thr Ser  
1090 1095 1100  
Leu Ser Gly Gly Thr Gly Ser Gly Thr Gln Gly Ala Thr Lys Pro Leu  
1105 1110 1115 1120  
Ser Thr Pro His Arg Pro Ser Thr Ala Ser Gly Ser Ser Val Val Thr  
1125 1130 1135  
Ala Ser Val Gln Ser Thr Ala Gly Ala Ser Leu Leu Ala Asn Ala Ser  
1140 1145 1150  
Pro Leu Thr Leu Met Thr Ser Pro Leu Ser Val Thr Asn Gln Asn Val  
1155 1160 1165  
Thr Pro Phe Gly Met Leu Gly Gly Leu Val Pro Val Thr Met Pro Phe  
1170 1175 1180  
Gln Phe Pro Leu Glu Ile Phe Gly Phe Gly Thr Asp Thr Ala Gly Val

1185                      1190                      1195                      1200  
 Thr Thr Thr Ser Gly Ser Thr Ser Ala Ala Phe His His Ser Leu Thr  
                             1205                      1210                      1215  
 Gln Asn Leu Leu Lys Gly Leu Gln Pro Gly Gly Ala Gln His Ala Ala  
                             1220                      1225                      1230  
 Thr Leu Ser His Ser Pro Leu Pro Ala His Leu Gln Gln Ala Phe His  
                             1235                      1240                      1245  
 Asp Gly Gly Gln Ser Lys Gly Asp Thr Lys Leu Pro Arg Lys Ser Gln  
                             1250                      1255                      1260

<210> 3840

<211> 1215

<212> PRT

<213> Homo sapiens

<400> 3840

Met Ala Met Arg Leu His Phe Gln Pro Pro His Pro Asn Cys Leu Tyr  
     1                      5                      10                      15  
 Thr Val Glu Leu Glu Ala Phe Ala Ile Tyr Lys Val Leu Gln Ser Tyr  
                             20                      25                      30  
 Ser Asn Ile Glu Glu Asp Cys Thr Met Cys Pro Ser Trp Cys Leu Thr  
                             35                      40                      45  
 Val Arg Ala Arg Gly His Ser Tyr Phe Ala Gly Phe Glu His His Ile  
                             50                      55                      60  
 Pro Gln Tyr Ser Leu Asp Val Pro Lys Leu Phe Pro Ala Val Ser Ser  
     65                      70                      75                      80  
 Gly Glu Pro Thr Tyr Arg Ser Leu Leu Leu Val Asn Lys Asp Cys Lys  
                             85                      90                      95

Leu Leu Thr Phe Ser Leu Ala Pro Gln Arg Gly Ser Asp Val Ile Leu  
100 105 110  
Arg Pro Thr Ser Gly Leu Val Ala Pro Gly Ala His Gln Ile Ile Leu  
115 120 125  
Ile Cys Thr Tyr Pro Glu Gly Ser Ser Trp Lys Gln His Thr Phe Tyr  
130 135 140  
Leu Gln Cys Asn Ala Ser Pro Gln Tyr Leu Lys Glu Val Ser Met Tyr  
145 150 155 160  
Ser Arg Glu Glu Pro Leu Gln Leu Lys Leu Asp Thr His Lys Ser Leu  
165 170 175  
Tyr Phe Lys Pro Thr Trp Val Gly Cys Ser Ser Thr Ser Pro Phe Thr  
180 185 190  
Phe Arg Asn Pro Ser Arg Leu Pro Leu Gln Phe Glu Trp Arg Val Ser  
195 200 205  
Glu Gln His Arg Lys Leu Leu Ala Val Gln Pro Ser Arg Gly Leu Ile  
210 215 220  
Gln Pro Asn Glu Arg Leu Thr Leu Thr Trp Thr Phe Ser Pro Leu Glu  
225 230 235 240  
Glu Thr Lys Tyr Leu Phe Gln Val Gly Met Trp Val Trp Glu Ala Gly  
245 250 255  
Leu Ser Pro Asn Ala Asn Pro Ala Ala Thr Thr His Tyr Met Leu Arg  
260 265 270  
Leu Val Gly Val Gly Leu Thr Ser Ser Leu Ser Ala Lys Glu Lys Glu  
275 280 285  
Leu Ala Phe Gly Asn Val Leu Val Asn Ser Lys Gln Ser Arg Phe Leu  
290 295 300  
Val Leu Leu Asn Asp Gly Asn Cys Thr Leu Tyr Tyr Arg Leu Tyr Leu  
305 310 315 320  
Glu Gln Gly Ser Pro Glu Ala Val Asp Asn His Pro Leu Ala Leu Gln



325	330	335
Leu Asp Arg Thr Glu Gly Ser Met Pro Pro Arg Ser Gln Asp Thr Ile		
340	345	350
Cys Leu Thr Ala Cys Pro Lys Gln Arg Ser Gln Tyr Ser Trp Thr Ile		
355	360	365
Thr Tyr Ser Leu Leu Ser His Arg Asp Asn Lys Ala Gly Gly Lys Gln		
370	375	380
Glu Leu Cys Cys Val Ser Leu Val Ala Val Tyr Pro Leu Leu Ser Ile		
385	390	395
Leu Asp Val Ser Ser Met Gly Ser Ala Glu Gly Ile Thr Arg Lys His		
405	410	415
Leu Trp Arg Leu Phe Ser Leu Asp Leu Leu Asn Ser Tyr Leu Glu Arg		
420	425	430
Asp Pro Thr Pro Cys Glu Leu Thr Tyr Lys Val Pro Thr Arg His Ser		
435	440	445
Met Ser Gln Ile Pro Pro Val Leu Thr Pro Leu Arg Leu Asp Phe Asn		
450	455	460
Phe Gly Ala Ala Pro Phe Lys Ala Pro Pro Ser Val Val Phe Leu Ala		
465	470	475
Leu Lys Asn Ser Gly Val Val Ser Leu Asp Trp Ala Phe Leu Leu Pro		
485	490	495
Ser Asp Gln Arg Ile Asp Val Glu Leu Trp Ala Glu Gln Ala Glu Leu		
500	505	510
Asn Ser Thr Glu Leu His Gln Met Arg Val Gln Asp Asn Cys Leu Phe		
515	520	525
Ser Ile Ser Pro Lys Ala Gly Ser Leu Ser Pro Gly Gln Glu Gln Met		
530	535	540
Val Glu Leu Lys Tyr Ser His Leu Phe Ile Gly Thr Asp His Leu Pro		
545	550	555
		560

Val Leu Phe Lys Val Ser His Gly Arg Glu Ile Leu Leu Asn Phe Ile  
565 570 575

Gly Val Thr Val Lys Pro Glu Gln Lys Tyr Val His Phe Thr Ser Thr  
580 585 590

Thr His Gln Phe Ile Pro Ile Pro Ile Gly Asp Thr Leu Pro Pro Arg  
595 600 605

Gln Ile Tyr Glu Leu Tyr Asn Gly Gly Ser Val Pro Val Thr Tyr Glu  
610 615 620

Val Gln Thr Asp Val Leu Ser Gln Val Gln Glu Lys Asn Phe Asp His  
625 630 635 640

Pro Ile Phe Cys Cys Leu Asn Pro Lys Gly Glu Ile Gln Pro Gly Ser  
645 650 655

Thr Ala Arg Val Leu Trp Ile Phe Ser Pro Ile Glu Ala Lys Thr Tyr  
660 665 670

Thr Val Asp Val Pro Ile His Ile Leu Gly Trp Asn Ser Ala Leu Ile  
675 680 685

His Phe Gln Gly Val Gly Tyr Asn Pro His Met Met Gly Asp Thr Ala  
690 695 700

Pro Phe His Asn Ile Ser Ser Trp Asp Asn Ser Ser Ile His Ser Arg  
705 710 715 720

Leu Val Val Pro Gly Gln Asn Val Phe Leu Ser Gln Ser His Ile Ser  
725 730 735

Leu Gly Asn Ile Pro Val Gln Ser Lys Cys Ser Arg Leu Leu Phe Leu  
740 745 750

Asn Asn Ile Ser Lys Asn Glu Glu Ile Ala Phe Ser Trp Gln Pro Ser  
755 760 765

Pro Leu Asp Phe Gly Glu Val Ser Val Ser Pro Met Ile Gly Val Val  
770 775 780

Ala Pro Glu Glu Thr Val Pro Phe Val Val Thr Leu Arg Ala Ser Val

785                      790                      795                      800  
His Ala Ser Phe Tyr Ser Ala Asp Leu Val Cys Lys Leu Tyr Ser Gln  
                         805                      810                      815  
Gln Leu Met Arg Gln Tyr His Lys Glu Leu Gln Glu Trp Lys Asp Glu  
                         820                      825                      830  
Lys Val Arg Gln Glu Val Glu Phe Thr Ile Thr Asp Met Lys Val Lys  
                         835                      840                      845  
Lys Arg Thr Cys Cys Thr Ala Cys Glu Pro Ala Arg Lys Tyr Lys Thr  
                         850                      855                      860  
Leu Pro Pro Ile Lys Asn Gln Gln Ser Val Ser Arg Pro Ala Ser Trp  
865                      870                      875                      880  
Lys Leu Gln Thr Pro Lys Glu Glu Val Ser Trp Pro Cys Pro Gln Pro  
                         885                      890                      895  
Pro Ser Pro Gly Ile Leu Cys Leu Gly Leu Thr Ala Arg Ala His Ala  
                         900                      905                      910  
Thr Asp Tyr Phe Leu Ala Asn Phe Phe Ser Gly Phe Pro Cys His Phe  
                         915                      920                      925  
Leu His Arg Glu Leu Pro Lys Arg Lys Ala Pro Arg Glu Glu Ser Glu  
                         930                      935                      940  
Thr Ser Glu Glu Lys Ser Pro Asn Lys Trp Gly Pro Val Ser Lys Gln  
945                      950                      955                      960  
Lys Lys Gln Leu Leu Val Asp Ile Leu Thr Thr Ile Ile Arg Gly Leu  
                         965                      970                      975  
Leu Glu Asp Lys Asn Phe His Glu Ala Val Asp Gln Ser Leu Val Glu  
                         980                      985                      990  
Gln Val Pro Tyr Phe Arg Gln Phe Trp Asn Glu Gln Ser Thr Lys Phe  
                         995                      1000                      1005  
Met Asp Gln Lys Asn Ser Leu Tyr Leu Met Pro Ile Leu Pro Val Pro  
1010                      1015                      1020

Ser Ser Ser Trp Glu Asp Gly Lys Gly Lys Gln Pro Lys Glu Asp Arg  
 1025                      1030                      1035                      1040  
 Pro Glu His Tyr Pro Gly Leu Gly Lys Lys Glu Glu Gly Glu Glu Glu  
                          1045                      1050                      1055  
 Lys Gly Glu Glu Glu Glu Glu Glu Glu Leu Glu Glu Glu Glu Glu Glu  
                          1060                      1065                      1070  
 Glu Glu Thr Glu Glu Glu Glu Leu Gly Lys Glu Glu Ile Glu Glu Lys  
                          1075                      1080                      1085  
 Glu Glu Glu Arg Asp Glu Lys Glu Glu Lys Val Ser Trp Ala Gly Ile  
                          1090                      1095                      1100  
 Gly Pro Thr Pro Gln Pro Glu Ser Gln Glu Ser Met Gln Trp Gln Trp  
 1105                      1110                      1115                      1120  
 Gln Gln Gln Leu Asn Val Met Val Lys Glu Glu Gln Glu Gln Asp Glu  
                          1125                      1130                      1135  
 Lys Glu Ala Ile Arg Arg Leu Pro Ala Phe Ala Asn Leu Gln Glu Ala  
                          1140                      1145                      1150  
 Leu Leu Glu Asn Met Ile Gln Asn Ile Leu Val Glu Ala Ser Arg Gly  
                          1155                      1160                      1165  
 Glu Val Val Leu Thr Ser Arg Pro Arg Val Ile Ala Leu Pro Pro Phe  
                          1170                      1175                      1180  
 Cys Val Pro Arg Ser Leu Thr Pro Asp Thr Leu Leu Pro Thr Gln Gln  
 1185                      1190                      1195                      1200  
 Ala Glu Val Leu His Pro Val Val Pro Leu Pro Thr Asp Leu Pro  
                          1205                      1210                      1215

&lt;210&gt; 3841

&lt;211&gt; 124

&lt;212&gt; PRT

<213> Homo sapiens

<400> 3841

Met	Gly	Glu	Asn	Ala	Val	Ile	Pro	Phe	Leu	Ser	Pro	Gln	Lys	Gly	His
1				5					10					15	
Gly	Cys	Arg	Glu	Trp	Trp	Leu	Met	Pro	Ile	Ile	Pro	Ala	Leu	Trp	Glu
			20					25					30		
Ala	Glu	Val	Gly	Arg	Ser	Pro	Glu	Val	Arg	Ser	Leu	Arg	Pro	Ala	Trp
			35					40					45		
Leu	Thr	Trp	Arg	Asn	Pro	Phe	Ser	Thr	Lys	Asn	Thr	Lys	Ile	Ser	Gln
		50				55					60				
Ser	Trp	Trp	Arg	Ala	Pro	Val	Ile	Pro	Ala	Thr	Trp	Glu	Thr	Glu	Ala
	65				70				75					80	
Gly	Glu	Ser	Leu	Glu	Pro	Gly	Arg	Leu	Glu	Val	Ala	Val	Ser	Arg	Asp
			85					90					95		
Trp	Ala	Thr	Ala	Leu	Gln	Pro	Gly	Gln	Trp	Ser	Ile	Ser	Lys	Lys	Lys
			100					105					110		
Lys	Glu	Arg	Lys	Lys	Lys	Glu	Gly	Gly	Cys	His	Gly				
			115					120							

<210> 3842

<211> 103

<212> PRT

<213> Homo sapiens

<400> 3842

Met	Arg	Gly	Leu	Gln	Trp	Asn	Gln	Asp	Pro	Glu	His	Arg	Arg	Val	Gly
1				5					10					15	

Ser Pro Ala Cys Ser Ala Ser Ser Phe Leu Leu Leu Leu Leu Phe Glu  
                     20                            25                            30  
 Thr Glu Ser Cys Ser Val Phe Arg Leu Glu Cys Ser Gly Arg Ile Leu  
                     35                            40                            45  
 Ala His Cys Asn Leu His Leu Pro Gly Ser Ser Asp Ser Pro Ala Ser  
                     50                            55                            60  
 Ala Ser Arg Val Ala Gly Thr Thr Gly Met Cys His His Ala Leu Leu  
                     65                            70                            75                            80  
 Ile Phe Val Phe Leu Val Glu Met Gly Phe His Tyr Val Gly Gln Val  
                                     85                            90                            95  
 Gly Leu Asp Leu Leu Thr Leu  
                                     100

&lt;210&gt; 3843

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3843

Met Val Pro Met His Cys Phe Trp Val Ile Ile Arg Arg Arg Met Asn  
                     1                            5                            10                            15  
 Ser Gly His Trp Ala Thr Asp Gly Gln Leu Leu Ala Pro Gly Leu Gly  
                             20                            25                            30  
 Leu Cys Val Gly Thr His Ala Ser Ala Leu Thr Cys Ser Cys Ser Ser  
                             35                            40                            45  
 Met Val Pro Ser Leu Ile Cys Gly Val Gln Arg Arg Arg Met Ala Ala  
                             50                            55                            60  
 Ser Leu Leu Tyr Pro Val Tyr Pro Ser Pro Cys Cys Trp His Leu Arg

65                      70                      75                      80  
 Leu Ser Pro His Ala Leu Ile Ser Leu Cys Thr Thr Tyr Gln Glu Val  
                             85                      90                      95  
 Leu Gln Trp Trp Leu Cys Leu Pro Ser Leu Arg Thr Leu Lys Thr Leu  
                             100                      105                      110  
 Ala Leu Pro Arg Gln Gln Ala Leu Pro Thr Ser Ala Phe Pro Pro Asn  
                             115                      120                      125  
 Asp Met Ala Met Phe Cys Phe Pro Arg Ser Ile Leu Ser His Ser Gln  
                             130                      135                      140  
 Gln Gly Val Asp Ile Leu Val  
 145                      150

&lt;210&gt; 3844

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3844

Met Pro Thr Leu His Arg Glu Arg Gln Gly Leu Ser Pro Lys Glu Ala  
     1                      5                      10                      15  
 Met Leu Cys Phe Ile Gln Glu Ala Cys Arg Leu Glu Asp Val Pro Val  
                             20                      25                      30  
 His Phe Phe Arg Leu His Lys Asp Lys Lys Glu Gly Arg Pro Thr Val  
                             35                      40                      45  
 Ile Leu Gly Leu Ala Leu Arg Gly Val His Ile Tyr Gln Glu Val Asp  
                             50                      55                      60  
 Arg Ala Pro Gln Leu Leu Tyr Asp Leu Pro Trp Pro His Val Gly Lys  
     65                      70                      75                      80

Leu Ala Phe Leu Gly Lys Lys Leu Glu Ile Gln Leu Asp Gly Leu Pro  
85 90 95  
Ala Ala Gln Lys Leu Val Tyr Tyr Thr Gly Cys Thr Trp Arg Ser Arg  
100 105 110  
His Leu Leu His Leu Leu Arg Ala Ser His Gln Leu His Leu Arg Val  
115 120 125  
Arg Pro Thr Leu Gln Gln Leu Arg Gln Arg Glu Glu Ala Glu Glu Lys  
130 135 140  
Gln His Tyr Arg Glu Ser Tyr Ile Ser Asp Glu Leu Glu Leu Asp Leu  
145 150 155 160  
Ala Ser Arg Ser Phe Pro Gly Ser Gly Val Ser Ser Gln His Cys Pro  
165 170 175  
His Cys Leu Ser Arg His Ser Ala Asp Ser His Gly Ser Ser Tyr Thr  
180 185 190  
Ser Gly Ile Lys Ala Asn Ser Trp Leu Arg Glu Ser Arg Glu Met Ser  
195 200 205  
Val Asp Val Pro Leu Glu Val His Gly Leu His Glu Lys Glu Pro Ser  
210 215 220  
Ser Ser Pro Arg Thr Ser Arg Ser His Pro Ser Thr Arg Gly Asp Ser  
225 230 235 240  
Gln Ala Thr Arg Gln Glu Pro Cys Thr Gln Val Arg Thr Arg Gly Gln  
245 250 255  
Ser Ala Glu Ala Val His Gln Phe Pro Pro Val  
260 265

&lt;210&gt; 3845

&lt;211&gt; 115

&lt;212&gt; PRT



<213> Homo sapiens

<400> 3845

Met Leu Glu Glu Pro Phe Ser Pro Pro Leu Arg Cys Gly Gly Pro Ser  
1 5 10 15  
Leu Gly Trp Pro Arg Pro Glu Pro Ala Pro Ser Ala Cys Arg Glu Val  
20 25 30  
Trp Arg Glu Arg Pro Gln Ala Gly Thr Gly Ala Ala Arg Ser Asp Gly  
35 40 45  
Arg Pro Ala Arg Val Pro Ser Gly Ser Gly Leu Ser Gly Ser Cys Gly  
50 55 60  
Gly Gly Ala Gly Tyr Pro Ser Thr Ala Gly Leu Pro Ala Pro Arg Ser  
65 70 75 80  
Asn Ser Arg Ser Ala Ser Ala Ala Ser Pro Pro Gly Arg Ala Arg Asp  
85 90 95  
Leu Gln Pro Ala Leu Pro Glu Ser Thr Arg Gly Gly Leu Pro Ala Ala  
100 105 110  
Lys Pro Pro  
115

<210> 3846

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3846

Met Ser Ala His Gln Gln Gly Glu Thr Ser Leu Pro Arg Ala Gln Gly  
1 5 10 15

Gly Arg Ser Glu Leu Ala Asp Ser Ser Trp Lys Pro Val Arg Gly Ala

20

25

30

Val Pro Arg Gly Met Thr Leu Ala Pro Ala Gln Ile Leu Leu Leu Cys

35

40

45

Gly Leu Pro Gly Leu Pro Ser Pro Pro Pro Gly Leu Leu Trp Thr Asp

50

55

60

Ile Ala Gln Ala Gly Val Gln Trp Cys Asp Leu Gly Ser Leu Gln Pro

65

70

75

80

Pro Pro Pro Arg Phe Lys Leu Phe Ser Cys Leu Ser Leu Leu Ser Ser

85

90

95

Trp Asp Tyr Arg Ser Trp Trp Leu Trp Leu Val Ile Pro Ala Ser Cys

100

105

110

Trp Leu Gln Val Asp Asp Ala His Leu Ala Ala Asp Asp Leu Cys Thr

115

120

125

Lys

<210> 3847

<211> 217

<212> PRT

<213> Homo sapiens

<400> 3847

Met Trp Val Thr Lys Phe Lys Gly Arg Glu Lys Lys Leu Met Lys Ile

1

5

10

15

Glu Ala His Leu Gly Leu Pro Ser Phe Ser Gly Ser Thr Leu Asp Phe

20

25

30

Phe Arg Ala Trp Ala Leu Ser Arg Glu Leu His Leu Ile Pro Trp Ala

35	40	45
Ala Arg Ser Ser Leu Gly Pro Arg Leu Trp Arg Leu Leu Gly Gly Pro		
50	55	60
Phe Leu Cys Leu His Ser Arg Arg Leu Ala Gly Glu Thr Gln Asp Leu		
65	70	75
Arg Leu Pro Gly His Leu His Cys Cys Pro Leu Gly Phe Cys Leu Arg		
85	90	95
Leu Cys Leu Gly Leu Cys Leu Ser Leu Arg Leu Gln Leu Gly Gly Arg		
100	105	110
Leu Leu Val Arg Ala Arg Phe Gly Gly Pro Gln Gly Phe Ser Ser Pro		
115	120	125
Gly Thr Leu Pro Leu Leu Val Asp Gly His Arg Gly Arg Ser Pro Cys		
130	135	140
Leu Gly Leu His Pro Ala Val Ala Glu Asp Leu Val Asp Val Glu Pro		
145	150	155
Pro Val Asp Val Gly Leu Gln His Val Val Asp Glu Val Leu Ala Leu		
165	170	175
Ala Cys Gln Val Leu Gly Ala Trp Glu Val Asp Ala Val Leu Leu Leu		
180	185	190
Asp Thr Gln His Leu Leu Asp Val Gly Val Val Val Gly His Gly Ala		
195	200	205
Ala Asp His Asp Val Glu Asp His Ala		
210	215	

&lt;210&gt; 3848

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3848

Met Lys Ser Gln Met Glu Leu Arg Ile Lys Asp Leu Glu Phe Lys Leu  
 1 5 10 15  
 Tyr Lys Ala Arg Thr Ser Gln Ala Asp Cys Asn Thr Thr Glu Leu Glu  
 20 25 30  
 Lys Tyr Lys Glu Leu Tyr Leu Glu Glu Leu Lys Leu Arg Glu Ser Leu  
 35 40 45  
 Ser Asp Glu Leu Asn Lys Arg Lys Glu Ile Leu Ala Asp Val Ser Thr  
 50 55 60  
 Lys Leu Leu Gln Glu Lys Glu Trp Ser Arg Ser Leu Phe Thr Ser His  
 65 70 75 80  
 Thr Thr Arg Pro Val Leu Glu Ser Ala Cys Asn Gly Asn Leu Asn Glu  
 85 90 95  
 Asn Leu Gly Leu Ser Arg Ile His Ile Pro Arg Glu Ala Leu Arg Ile  
 100 105 110  
 Pro Thr Leu Asn Ser Leu Ser Ser Asn Ile Arg Met Glu Ser Asp Leu  
 115 120 125  
 Ser Lys Glu Asp Lys Asn Gly Gly His Phe Leu Glu Leu Gln Ala  
 130 135 140

&lt;210&gt; 3849

&lt;211&gt; 609

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3849

Met Leu Leu Leu Ala Ser Thr Glu Pro Ser Ser Leu Cys Tyr Val Glu

1	5	10	15
Thr Val Asp Ile Asp Gly Glu Thr Asn Leu Lys Phe Arg Gln Ala Leu			
20	25	30	
Met Val Thr His Lys Glu Leu Ala Thr Ile Lys Lys Met Ala Ser Phe			
35	40	45	
Gln Gly Thr Val Thr Cys Glu Ala Pro Asn Ser Arg Met His His Phe			
50	55	60	
Val Gly Cys Leu Glu Trp Asn Asp Lys Lys Tyr Ser Leu Asp Ile Gly			
65	70	75	80
Asn Leu Leu Leu Arg Gly Cys Arg Ile Arg Asn Thr Asp Thr Cys Tyr			
85	90	95	
Gly Leu Val Ile Tyr Ala Gly Phe Asp Thr Lys Ile Met Lys Asn Cys			
100	105	110	
Gly Lys Ile His Leu Lys Arg Thr Lys Leu Asp Leu Leu Val Asn Lys			
115	120	125	
Leu Val Val Val Ile Phe Ile Ser Val Val Leu Val Cys Leu Val Leu			
130	135	140	
Ala Phe Gly Phe Gly Phe Ser Val Lys Glu Phe Lys Asp His His Tyr			
145	150	155	160
Tyr Leu Ser Gly Val His Gly Ser Ser Val Ala Ala Glu Ser Phe Phe			
165	170	175	
Val Phe Trp Ser Phe Leu Ile Leu Leu Ser Val Thr Ile Pro Met Ser			
180	185	190	
Met Phe Ile Leu Ser Glu Phe Ile Tyr Leu Gly Asn Ser Val Phe Ile			
195	200	205	
Asp Trp Asp Val Gln Met Tyr Tyr Lys Pro Gln Asp Val Pro Ala Lys			
210	215	220	
Ala Arg Ser Thr Ser Leu Asn Asp His Leu Gly Gln Val Glu Tyr Ile			
225	230	235	240

出証特 2 0 0 4 - 3 0 5 9 6 6 0

465                      470                      475                      480  
 Asn Glu Met Glu Gln Asp Leu Arg Leu Leu Gly Ala Thr Ala Ile Glu  
                          485                      490                      495  
 Asp Arg Leu Gln Asp Gly Val Pro Glu Thr Ile Lys Cys Leu Lys Lys  
                          500                      505                      510  
 Ser Asn Ile Lys Ile Trp Val Leu Thr Gly Asp Lys Gln Glu Thr Ala  
                          515                      520                      525  
 Val Asn Ile Gly Phe Ala Cys Glu Leu Leu Ser Glu Asn Met Leu Ile  
                          530                      535                      540  
 Leu Glu Glu Lys Glu Ile Ser Arg Ile Leu Glu Thr Tyr Trp Glu Asn  
 545                      550                      555                      560  
 Ser Asn Asn Leu Leu Thr Arg Glu Ser Leu Ser Gln Val Lys Leu Ala  
                          565                      570                      575  
 Leu Val Ile Asn Gly Asp Phe Leu Ala Pro Val Pro Ala Val Pro Glu  
                          580                      585                      590  
 Val Arg Ala Pro Ala Gly Cys Thr Ala Ser Pro Gly Leu Gln Ser Pro  
                          595                      600                      605  
 Pro

<210> 3850

<211> 483

<212> PRT

<213> Homo sapiens

<400> 3850

Met Thr Met Lys Val Asp Met Ser Gly Leu Gln Ala Lys Asn Glu Ile  
 1                      5                      10                      15

Leu Ser Glu Lys Leu Ser Asn Ala Glu Ser Lys Ile Asn Ser Leu Gln  
 20 25 30  
 Ile Gln Leu His Asn Thr Arg Asp Ala Leu Gly Arg Glu Ser Leu Ile  
 35 40 45  
 Leu Glu Arg Val Gln Arg Asp Leu Ser Gln Thr Gln Cys Gln Lys Lys  
 50 55 60  
 Glu Thr Glu Gln Met Tyr Gln Ile Glu Gln Ser Lys Leu Lys Lys Tyr  
 65 70 75 80  
 Ile Ala Lys Gln Glu Ser Val Glu Glu Arg Leu Ser Gln Leu Gln Ser  
 85 90 95  
 Glu Asn Met Leu Leu Arg Gln Gln Leu Asp Asp Ala His Lys Lys Ala  
 100 105 110  
 Asn Ser Gln Glu Lys Thr Ser Ser Thr Ile Gln Asp Gln Phe His Ser  
 115 120 125  
 Ala Ala Lys Asn Leu Arg Ala Glu Ser Glu Lys Gln Ile Leu Ser Leu  
 130 135 140  
 Gln Glu Lys Asn Lys Glu Leu Met Asp Glu Tyr Asn His Leu Lys Glu  
 145 150 155 160  
 Arg Met Asp Gln Cys Glu Lys Glu Lys Ala Gly Arg Lys Val Val Met  
 165 170 175  
 Arg Glu Phe Gln Gln Glu Trp Thr Asp Leu Leu Lys Gln Gln Pro Thr  
 180 185 190  
 Ser Glu Ala Thr Ser Arg Cys His Ile Asn Leu Asp Glu Thr Gln Asp  
 195 200 205  
 Ser Lys Lys Lys Leu Gly Gln Ile Arg Ser Glu Ile Asp Leu Thr Glu  
 210 215 220  
 Ala Gln Glu Thr Val Pro Ser Arg Cys Leu His Leu Asp Ala Glu Asn  
 225 230 235 240  
 Glu Val Leu Gln Leu Gln Gln Thr Leu Phe Ser Met Lys Ala Ile Gln



245 250 255  
Lys Gln Cys Glu Thr Leu Gln Lys Asn Lys Lys Gln Leu Lys Gln Glu  
260 265 270  
Val Val Asn Leu Lys Ser Tyr Met Glu Arg Asn Met Leu Glu Arg Gly  
275 280 285  
Lys Ala Glu Trp His Lys Leu Leu Ile Glu Glu Arg Ala Arg Lys Glu  
290 295 300  
Ile Glu Glu Lys Leu Asn Glu Ala Ile Leu Thr Leu Gln Lys Gln Ala  
305 310 315 320  
Ala Val Ser His Glu Gln Leu Val Gln Leu Arg Glu Asp Asn Thr Thr  
325 330 335  
Ser Ile Lys Thr Gln Met Glu Leu Thr Ile Lys Asp Leu Glu Ser Glu  
340 345 350  
Ile Ser Arg Ile Lys Thr Ser Gln Ala Asp Phe Asn Lys Thr Glu Leu  
355 360 365  
Glu Arg Tyr Lys Glu Leu Tyr Leu Glu Glu Val Lys Val Arg Glu Ser  
370 375 380  
Leu Ser Asn Glu Leu Ser Arg Thr Asn Glu Met Ile Ala Glu Val Ser  
385 390 395 400  
Thr Gln Leu Thr Val Glu Lys Glu Gln Thr Arg Ser Arg Ser Leu Phe  
405 410 415  
Thr Ala Tyr Ala Thr Arg Pro Val Leu Glu Ser Pro Cys Val Gly Asn  
420 425 430  
Leu Asn Asp Ser Glu Gly Leu Asn Arg Lys His Ile Pro Arg Lys Lys  
435 440 445  
Arg Ser Ala Leu Lys Asp Met Glu Ser Tyr Leu Leu Lys Val Ser Tyr  
450 455 460  
Leu Phe Ser Phe Gly Val Gln Ile Ser Asp Arg Thr Leu Val Cys Tyr  
465 470 475 480

Leu Val Lys

<210> 3851

<211> 365

<212> PRT

<213> Homo sapiens

<400> 3851

Met	Val	Arg	Val	Pro	Ser	Pro	Phe	Gly	Pro	Arg	Glu	Gln	Ser	Thr	Tyr
1				5					10					15	
Val	Leu	Val	Arg	Asp	Ala	Glu	Ala	Glu	Asn	Pro	Gly	Ala	Pro	Gly	Ser
				20					25					30	
Pro	Leu	Asn	Val	Arg	Cys	Leu	Asp	Val	Asn	Arg	Asp	Cys	Leu	Ile	Leu
				35					40					45	
Thr	Trp	Ala	Pro	Pro	Ser	Asp	Thr	Arg	Gly	Asn	Pro	Ile	Thr	Ala	Tyr
				50					55					60	
Thr	Ile	Glu	Arg	Cys	Gln	Gly	Glu	Ser	Gly	Glu	Trp	Ile	Ala	Cys	His
				65					70					75	
Glu	Ala	Pro	Gly	Gly	Thr	Cys	Arg	Cys	Pro	Ile	Gln	Gly	Leu	Val	Glu
				85					90					95	
Gly	Gln	Ser	Tyr	Arg	Phe	Arg	Val	Arg	Ala	Ile	Ser	Arg	Val	Gly	Ser
				100					105					110	
Ser	Val	Pro	Ser	Lys	Ala	Ser	Glu	Leu	Val	Val	Met	Gly	Asp	His	Asp
				115					120					125	
Ala	Ala	Arg	Arg	Lys	Thr	Glu	Ile	Pro	Phe	Asp	Leu	Gly	Asn	Lys	Ile
				130					135					140	
Thr	Ile	Ser	Thr	Asp	Ala	Phe	Glu	Asp	Thr	Val	Thr	Ile	Pro	Ser	Pro

145                      150                      155                      160  
Pro Thr Asn Val His Ala Ser Glu Ile Arg Glu Ala Tyr Val Val Leu  
                         165                      170                      175  
Ala Trp Glu Glu Pro Ser Pro Arg Gly Arg Ala Pro Leu Thr Tyr Ser  
                         180                      185                      190  
Leu Glu Lys Ser Val Ile Gly Ser Gly Thr Trp Glu Ala Ile Ser Ser  
                         195                      200                      205  
Glu Ser Pro Val Arg Ser Pro Arg Phe Ala Val Leu Asp Leu Glu Lys  
                         210                      215                      220  
Lys Lys Ser Tyr Val Phe Arg Val Arg Ala Met Asn Gln Tyr Gly Leu  
225                      230                      235                      240  
Ser Asp Pro Ser Glu Pro Ser Glu Pro Ile Ala Leu Arg Gly Pro Pro  
                         245                      250                      255  
Ala Thr Leu Pro Pro Pro Ala Gln Val Gln Ala Phe Arg Asp Thr Gln  
                         260                      265                      270  
Thr Ser Val Ser Leu Thr Trp Asp Pro Val Lys Asp Pro Glu Leu Leu  
                         275                      280                      285  
Gly Tyr Tyr Ile Tyr Ser Arg Lys Val Gly Thr Ser Glu Trp Gln Thr  
                         290                      295                      300  
Val Asn Asn Lys Pro Ile Gln Gly Thr Arg Tyr Val Cys Pro Pro Val  
305                      310                      315                      320  
Ser Val Cys Ser His Thr Ala Ile Lys Thr Tyr Leu Arg Leu Gly Asn  
                         325                      330                      335  
Phe Phe Tyr Lys Glu Lys Arg Phe Asn Gln Leu Thr Val Leu Arg Pro  
                         340                      345                      350  
Ile Gln Ala Ser Phe Ser Gly Glu Ala Ser Gly Asn Leu  
                         355                      360                      365

&lt;210&gt; 3852

&lt;211&gt; 566

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3852

Met Ala Met Gly Arg Gly Glu Gly Leu Val Gly Asp Gly Pro Val Asp

1 5 10 15

Met Arg Thr Ser His Ser Asp Met Lys Ser Glu Arg Arg Pro Pro Ser

20 25 30

Pro Asp Val Ile Val Leu Ser Asp Asn Glu Gln Pro Ser Ser Pro Arg

35 40 45

Val Asn Gly Leu Thr Thr Val Ala Leu Lys Glu Thr Ser Thr Glu Ala

50 55 60

Leu Met Lys Ser Ser Pro Glu Glu Arg Glu Arg Met Ile Lys Gln Leu

65 70 75 80

Lys Glu Glu Leu Arg Leu Glu Glu Ala Lys Leu Val Leu Leu Lys Lys

85 90 95

Leu Arg Gln Ser Gln Ile Gln Lys Glu Ala Thr Ala Gln Lys Pro Thr

100 105 110

Gly Ser Val Gly Ser Thr Val Thr Thr Pro Pro Pro Leu Val Arg Gly

115 120 125

Thr Gln Asn Ile Pro Ala Gly Lys Pro Ser Leu Gln Thr Ser Ser Ala

130 135 140

Arg Met Pro Gly Ser Val Ile Pro Pro Pro Leu Val Arg Gly Gly Gln

145 150 155 160

Gln Ala Ser Ser Lys Leu Gly Pro Gln Ala Ser Ser Gln Val Val Met

165 170 175

Pro Pro Leu Val Arg Gly Ala Gln Gln Ile His Ser Ile Arg Gln His

180	185	190
Ser Ser Thr Gly Pro Pro Pro Leu Leu Leu Ala Pro Arg Ala Ser Val		
195	200	205
Pro Ser Val Gln Ile Gln Gly Gln Arg Ile Ile Gln Gln Gly Leu Ile		
210	215	220
Arg Val Ala Asn Val Pro Asn Thr Ser Leu Leu Val Asn Ile Pro Gln		
225	230	235
Pro Thr Pro Ala Ser Leu Lys Gly Thr Thr Ala Thr Ser Ala Gln Ala		
245	250	255
Asn Ser Thr Pro Thr Ser Val Ala Ser Val Val Thr Ser Ala Glu Ser		
260	265	270
Pro Ala Ser Arg Gln Ala Ala Ala Lys Leu Ala Leu Arg Lys Gln Leu		
275	280	285
Glu Lys Thr Leu Leu Glu Ile Pro Pro Pro Lys Pro Pro Ala Pro Glu		
290	295	300
Met Asn Phe Leu Pro Ser Ala Ala Asn Asn Glu Phe Ile Tyr Leu Val		
305	310	315
Gly Leu Glu Glu Val Val Gln Asn Leu Leu Glu Thr Gln Ala Gly Arg		
325	330	335
Met Ser Ala Ala Thr Val Leu Ser Arg Glu Pro Tyr Met Cys Ala Gln		
340	345	350
Cys Lys Thr Asp Phe Thr Cys Arg Trp Arg Glu Glu Lys Ser Gly Ala		
355	360	365
Ile Met Cys Glu Asn Cys Met Thr Thr Asn Gln Lys Lys Ala Leu Lys		
370	375	380
Val Glu His Thr Ser Arg Leu Lys Ala Ala Phe Val Lys Ala Leu Gln		
385	390	395
Gln Glu Gln Glu Ile Glu Gln Arg Leu Leu Gln Gln Gly Thr Ala Pro		
405	410	415

Ala Gln Ala Lys Ala Glu Pro Thr Ala Ala Pro His Pro Val Leu Lys

420

425

430

Gln Val Ile Lys Pro Arg Arg Lys Leu Ala Phe Arg Ser Gly Glu Ala

435

440

445

Arg Asp Trp Ser Asn Gly Ala Val Leu Gln Ala Ser Ser Gln Leu Ser

450

455

460

Arg Gly Ser Ala Thr Thr Pro Arg Gly Val Leu His Thr Phe Ser Pro

465

470

475

480

Ser Pro Lys Leu Gln Asn Ser Ala Ser Ala Thr Ala Leu Val Ser Arg

485

490

495

Thr Gly Arg His Ser Glu Arg Thr Val Ser Ala Gly Lys Gly Ser Ala

500

505

510

Thr Ser Asn Trp Lys Lys Thr Pro Leu Ser Thr Gly Gly Thr Leu Ala

515

520

525

Phe Val Ser Pro Ser Leu Ala Val His Lys Ser Ser Ser Ala Val Asp

530

535

540

Arg Gln Arg Glu Tyr Leu Leu Asp Met Ile Pro Pro Arg Ser Ile Pro

545

550

555

560

Gln Ser Ala Thr Trp Lys

565

<210> 3853

<211> 357

<212> PRT

<213> Homo sapiens

<400> 3853

Met His Trp Leu Ala Ser Ala Thr Gln Thr Ser Ala Ser Ile Val Ser

1	5	10	15
Ser Ser Leu Leu Ser Ala Val Asp Val Ser Ser Ser Leu Thr Met Ser			
20	25	30	
Glu Tyr Phe Gln Asn Thr Ser Leu Pro Gly Thr Ala Asn Ser Arg Gln			
35	40	45	
Phe Ser Leu Pro Val Val Ser Asn Ala Ala Phe Leu Thr Gly Ser Ile			
50	55	60	
Ser Asn Phe Ser Arg Ala Ser Ala Pro Ala Ile Ser Ser Ala Trp Leu			
65	70	75	80
Gln Pro Ser Ala Ser Gly Thr Ser Phe Gln Pro Leu Met Gly Ser Ala			
85	90	95	
Tyr Leu Tyr Gln His Ser Ser Thr Thr Met Leu Ser Gly Val Thr Gly			
100	105	110	
Gln Ser His Ile Cys Thr Ser Ala Ala Ser Tyr Pro Gly Val Phe Glu			
115	120	125	
Trp Asp Ser Thr Ala Ser Thr Val Lys Lys Ser Ser Ser Leu Arg Asp			
130	135	140	
Phe Thr Val Thr Val Ile Asp Gln Asn Thr Ala Val Ser Ser Met Ser			
145	150	155	160
Met Thr Ala Gln Tyr Tyr Lys Thr Ser Asp Thr Asn Thr Met Val Pro			
165	170	175	
Leu Tyr Pro Ser Leu Ser Ala Ser Leu Val Gln Gly Thr Leu Thr Gln			
180	185	190	
Ile Pro Asn Gln Gln Gly His Asn Leu Ser Leu Pro Cys Gln Ile Gly			
195	200	205	
Ser Gln Val Tyr Tyr Tyr Asn Gln Gly Thr Leu Gly Pro Gln Leu Ser			
210	215	220	
Cys Leu Gln Ser Tyr Gly Ser Val Ser Tyr Thr Gly Tyr Arg Ala Ser			
225	230	235	240

Ala His Gln Pro Glu Met Val Met Val Leu Lys Glu Val Gln Pro Thr

245

250

255

Asn Val Leu Pro Pro Val Ser Thr Ser Gly Met Tyr Tyr Ser Val Ser

260

265

270

Ser Gln Pro Ile Thr Glu Thr Ser Val Gln Val Met Glu Thr Ser Leu

275

280

285

Gly Met Asp Thr Ser Leu Gly Leu Gln Ser Pro Ser Gln Thr Phe Cys

290

295

300

Leu Pro Gln Thr Pro Glu Phe Ser Lys Ser Phe Ser Ser Arg Asn Thr

305

310

315

320

Gln Thr Leu Glu Ser Asn Pro Ser Pro Glu Leu Gly Asp Ile Ser Ile

325

330

335

Thr Pro Val Gln Ser Pro Thr Asn Leu Leu Thr Leu Ser Pro Ala Pro

340

345

350

Ser Gln Glu Lys Lys

355

<210> 3854

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3854

Met Gln Gly Gly Glu Ala Glu Gly Gly Trp Gly Leu Glu Ser Gly Leu

1

5

10

15

Ser Pro Arg Pro Leu Leu Gln Ala Gly Asp Leu Gly Gln Val Ser Ser

20

25

30

Pro Leu Cys Gly Ala Gly Gly Ala Phe Ser Arg Leu Gly Gly Ser Ser



35                      40                      45  
 Gly Thr Gly Pro Glu Thr Gly Asp Leu Leu Ser Pro Ser Leu Ser His  
 50                      55                      60  
 Ser Leu His Leu Ser Pro Arg Leu Thr Pro Thr His Ser Ile Ser His  
 65                      70                      75                      80  
 Ser Leu Ser Phe Ser His Arg Leu Thr Pro Cys Leu Ile Cys Ser Leu  
 85                      90                      95  
 Thr His Ser Phe Leu Ser Pro Ser Leu Ser Leu Cys Leu Ser Leu Pro  
 100                      105                      110  
 Leu Arg Leu Val His Thr Leu Thr Asn Gly Ala  
 115                      120

&lt;210&gt; 3855

&lt;211&gt; 906

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3855

Met Ser Ala Thr Ile Ser Cys Lys Glu Phe Ala Asp Tyr Phe Ala Val  
 1                      5                      10                      15  
 Pro Val Gln Asn Lys Met Asn Pro Ala Tyr Ile Phe Glu Val Glu Gly  
 20                      25                      30  
 Lys Pro His Ser Val Glu Glu Tyr Tyr Leu Asn Asp Leu Glu His Ile  
 35                      40                      45  
 His His Ser Lys Leu Ser Pro His Leu Leu Glu Glu Pro Val Ile Thr  
 50                      55                      60  
 Lys Asp Ile Tyr Glu Val Ala Val Ser Leu Ile Gln Met Phe Asp Asp  
 65                      70                      75                      80

Leu Asp Met Lys Glu Ser Gly Asn Lys Ala Trp Ser Gly Ala Gln Phe  
                     85                    90                    95  
 Val Leu Glu Arg Ser Ser Val Leu Val Phe Leu Pro Gly Leu Gly Glu  
                     100                    105                    110  
 Ile Asn Tyr Met His Glu Leu Leu Thr Ser Leu Val His Lys Arg Leu  
                     115                    120                    125  
 Gln Val Tyr Pro Leu His Ser Ser Val Ala Leu Glu Glu Gln Asn Asn  
                     130                    135                    140  
 Val Phe Leu Ser Pro Val Pro Gly Tyr Arg Lys Ile Ile Leu Ser Thr  
 145                    150                    155                    160  
 Asn Ile Ala Glu Ser Ser Val Thr Val Pro Asp Val Lys Tyr Val Ile  
                     165                    170                    175  
 Asp Phe Cys Leu Thr Arg Thr Leu Val Cys Asp Glu Asp Thr Asn Tyr  
                     180                    185                    190  
 Gln Ser Leu Arg Leu Ser Trp Ala Ser Lys Thr Ser Cys Asn Gln Arg  
                     195                    200                    205  
 Lys Gly Arg Ala Gly Arg Val Ser Arg Gly Tyr Cys Tyr Arg Leu Val  
                     210                    215                    220  
 His Lys Asp Phe Trp Asp Asn Ser Ile Pro Asp His Val Val Pro Glu  
 225                    230                    235                    240  
 Met Leu Arg Cys Pro Leu Gly Ser Thr Ile Leu Lys Val Lys Leu Leu  
                     245                    250                    255  
 Asp Met Gly Glu Pro Arg Ala Leu Leu Ala Thr Ala Leu Ser Pro Pro  
                     260                    265                    270  
 Gly Leu Ser Asp Ile Glu Arg Thr Ile Leu Leu Leu Lys Glu Val Gly  
                     275                    280                    285  
 Ala Leu Ala Val Ser Gly Gln Arg Glu Asp Glu Asn Pro His Asp Gly  
                     290                    295                    300  
 Glu Leu Thr Phe Leu Gly Arg Val Leu Ala Gln Leu Pro Val Asn Gln

305                      310                      315                      320  
Gln Leu Gly Lys Leu Ile Val Leu Gly His Val Phe Gly Cys Leu Asp  
                         325                      330                      335  
Glu Cys Leu Ile Ile Ala Ala Ala Leu Ser Leu Lys Asn Phe Phe Ala  
                         340                      345                      350  
Met Pro Phe Arg Gln His Leu Asp Gly Tyr Arg Asn Lys Val Asn Phe  
                         355                      360                      365  
Ser Gly Ser Ser Lys Ser Asp Cys Ile Ala Leu Val Glu Ala Phe Lys  
                         370                      375                      380  
Thr Trp Lys Ala Cys Arg Gln Thr Gly Glu Leu Arg Tyr Pro Lys Asp  
385                      390                      395                      400  
Glu Leu Asn Trp Gly Arg Leu Asn Tyr Ile Gln Ile Lys Arg Ile Arg  
                         405                      410                      415  
Glu Val Ala Glu Leu Tyr Glu Glu Leu Lys Thr Arg Ile Ser Gln Phe  
                         420                      425                      430  
Asn Met His Val Asp Ser Arg Arg Pro Val Met Asp Gln Glu Tyr Ile  
                         435                      440                      445  
Tyr Lys Gln Arg Phe Ile Leu Gln Val Val Leu Ala Gly Ala Phe Tyr  
                         450                      455                      460  
Pro Asn Tyr Phe Thr Phe Gly Gln Pro Asp Glu Glu Met Ala Val Arg  
465                      470                      475                      480  
Glu Leu Ala Gly Lys Asp Pro Lys Thr Thr Val Val Leu Lys His Ile  
                         485                      490                      495  
Pro Pro Tyr Gly Phe Leu Tyr Tyr Lys Gln Leu Gln Ser Leu Phe Arg  
                         500                      505                      510  
Gln Cys Gly Gln Val Lys Ser Ile Val Phe Asp Gly Ala Lys Ala Phe  
                         515                      520                      525  
Val Glu Phe Ser Arg Asn Pro Thr Glu Arg Phe Lys Thr Leu Pro Ala  
                         530                      535                      540

Val Tyr Met Ala Ile Lys Met Ser Gln Leu Lys Val Ser Leu Glu Leu  
545 550 555 560  
Ser Val His Ser Ala Glu Glu Ile Glu Gly Lys Val Gln Gly Met Asn  
565 570 575  
Val Ser Lys Leu Arg Asn Thr Arg Val Asn Val Asp Phe Gln Lys Gln  
580 585 590  
Thr Val Asp Pro Met Gln Val Ser Phe Asn Thr Ser Asp Arg Ser Gln  
595 600 605  
Thr Val Thr Asp Leu Leu Leu Thr Ile Asp Val Thr Glu Val Val Glu  
610 615 620  
Val Gly His Phe Trp Gly Tyr Arg Ile Asp Glu Asn Asn Ser Glu Ile  
625 630 635 640  
Leu Lys Lys Leu Thr Ala Glu Ile Asn Gln Leu Thr Leu Val Pro Leu  
645 650 655  
Pro Thr His Pro His Pro Asp Leu Val Cys Leu Ala Pro Phe Ala Asp  
660 665 670  
Phe Asp Lys Gln Arg Tyr Phe Arg Ala Gln Val Leu Tyr Val Ser Gly  
675 680 685  
Asn Ser Ala Glu Val Phe Phe Val Asp Tyr Gly Asn Lys Ser His Val  
690 695 700  
Asp Leu His Leu Leu Met Glu Ile Pro Cys Gln Phe Leu Glu Leu Pro  
705 710 715 720  
Phe Gln Ala Leu Glu Phe Lys Ile Cys Lys Met Arg Pro Ser Ala Lys  
725 730 735  
Ser Leu Val Cys Gly Lys His Trp Ser Asp Gly Ala Ser Gln Trp Phe  
740 745 750  
Ala Ser Leu Val Ser Gly Cys Thr Leu Leu Val Lys Val Phe Ser Val  
755 760 765  
Val His Ser Val Leu His Val Asp Val Tyr Gln Tyr Ser Gly Val Gln

770 775 780  
Asp Ala Ile Asn Ile Arg Asp Val Leu Ile Gln Gln Gly Tyr Ala Glu  
785 790 795 800  
Leu Thr Glu Glu Ser Tyr Glu Ser Lys Val Asn Ile Leu Arg Ala Ala  
805 810 815  
Ile Asn Lys Leu Val Cys Asp Gly Pro Asn Gly Cys Lys Cys Leu Gly  
820 825 830  
Pro Glu Arg Val Ala Gln Leu Gln Asp Ile Ala Arg Gln Lys Leu Leu  
835 840 845  
Gly Leu Phe Cys Gln Ser Lys Pro Arg Glu Lys Ile Val Pro Lys Trp  
850 855 860  
His Glu Lys Pro Tyr Glu Trp Asn Gln Val Asp Pro Lys Leu Val Met  
865 870 875 880  
Glu Gln Ala Asp Arg Glu Ser Ser Arg Gly Lys Asn Thr Phe Leu Tyr  
885 890 895  
Gln Leu His Lys Leu Val Val Leu Gly Thr  
900 905

&lt;210&gt; 3856

&lt;211&gt; 738

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3856

Met Leu Lys Trp Ile Ser Trp Arg Gln Ser Lys Ala Asn Lys Ala Gln  
1 5 10 15  
Leu Ser Gly Gly Cys Glu Leu Thr Val Val Leu Gln Asp Phe Ser Ala  
20 25 30

Gly His Ser Ser Glu Leu Thr Ile Gln Val Gly Gln Thr Val Glu Leu  
 35 40 45  
 Leu Glu Arg Pro Ser Glu Arg Pro Gly Trp Cys Leu Val Arg Thr Thr  
 50 55 60  
 Glu Arg Ser Pro Pro Leu Glu Gly Leu Val Pro Ser Ser Ala Leu Cys  
 65 70 75 80  
 Ile Ser His Ser Arg Ser Ser Val Glu Met Asp Cys Phe Phe Pro Leu  
 85 90 95  
 Val Lys Asp Ala Tyr Ser His Ser Ser Ser Glu Asn Gly Gly Lys Ser  
 100 105 110  
 Glu Ser Val Ala Asn Leu Gln Ala Gln Pro Ser Leu Asn Ser Ile His  
 115 120 125  
 Ser Ser Pro Gly Pro Lys Arg Ser Thr Asn Thr Leu Lys Lys Trp Leu  
 130 135 140  
 Thr Ser Pro Val Arg Arg Leu Asn Ser Gly Lys Ala Asp Gly Asn Ile  
 145 150 155 160  
 Lys Lys Gln Lys Lys Val Arg Asp Gly Arg Lys Ser Phe Asp Leu Gly  
 165 170 175  
 Ser Pro Lys Pro Gly Asp Glu Thr Thr Pro Gln Gly Asp Ser Ala Asp  
 180 185 190  
 Glu Lys Ser Lys Lys Gly Trp Gly Glu Asp Glu Pro Asp Glu Glu Ser  
 195 200 205  
 His Thr Pro Leu Pro Pro Pro Met Lys Ile Phe Asp Asn Asp Pro Thr  
 210 215 220  
 Gln Asp Glu Met Ser Leu Glu Gly Ser Ser Tyr Arg Gly Ser Leu Lys  
 225 230 235 240  
 Asp Pro Ala Gly Cys Leu Asn Glu Gly Met Ala Pro Pro Thr Pro Pro  
 245 250 255  
 Lys Asn Pro Glu Glu Glu Gln Lys Ala Lys Ala Leu Arg Gly Arg Met

260	265	270
Phe Val Leu Asn Glu Leu Val Gln Thr Glu Lys Asp Tyr Val Lys Asp		
275	280	285
Leu Gly Ile Val Val Glu Gly Phe Met Lys Arg Ile Glu Glu Lys Gly		
290	295	300
Val Pro Glu Asp Met Arg Gly Lys Asp Lys Ile Val Phe Gly Asn Ile		
305	310	315
His Gln Ile Tyr Asp Trp His Lys Asp Phe Phe Leu Ala Glu Leu Glu		
325	330	335
Lys Cys Ile Gln Glu Gln Asp Arg Leu Ala Gln Leu Phe Ile Lys His		
340	345	350
Glu Arg Lys Leu His Ile Tyr Val Trp Tyr Cys Gln Asn Lys Pro Arg		
355	360	365
Ser Glu Tyr Ile Val Ala Glu Tyr Asp Ala Tyr Phe Glu Glu Val Lys		
370	375	380
Gln Glu Ile Asn Gln Arg Leu Thr Leu Ser Asp Phe Leu Ile Lys Pro		
385	390	395
Ile Gln Arg Ile Thr Lys Tyr Gln Leu Leu Leu Lys Asp Phe Leu Arg		
405	410	415
Tyr Ser Glu Lys Ala Gly Leu Glu Cys Ser Asp Ile Glu Lys Ala Val		
420	425	430
Glu Leu Met Cys Leu Val Pro Lys Arg Cys Asn Asp Met Met Asn Leu		
435	440	445
Gly Arg Leu Gln Gly Phe Glu Gly Thr Leu Thr Ala Gln Gly Lys Leu		
450	455	460
Leu Gln Gln Asp Thr Phe Tyr Val Ile Glu Leu Asp Ala Gly Met Gln		
465	470	475
Ser Arg Thr Lys Glu Arg Arg Val Phe Leu Phe Glu Gln Ile Val Ile		
485	490	495

Phe Ser Glu Leu Leu Arg Lys Gly Ser Leu Thr Pro Gly Tyr Met Phe  
500 505 510  
Lys Arg Ser Ile Lys Met Asn Tyr Leu Val Leu Glu Glu Asn Val Asp  
515 520 525  
Asn Asp Pro Cys Lys Phe Ala Leu Met Asn Arg Glu Thr Ser Glu Arg  
530 535 540  
Val Val Leu Gln Ala Ala Asn Ala Asp Ile Gln Gln Ala Trp Val Gln  
545 550 555 560  
Asp Ile Asn Gln Val Leu Glu Thr Gln Arg Asp Phe Leu Asn Ala Leu  
565 570 575  
Gln Ser Pro Ile Glu Tyr Gln Arg Lys Glu Arg Ser Thr Ala Val Met  
580 585 590  
Arg Ser Gln Pro Ala Arg Leu Pro Gln Ala Ser Pro Arg Pro Tyr Ser  
595 600 605  
Ser Val Pro Ala Gly Ser Glu Lys Pro Pro Lys Gly Ser Ser Tyr Asn  
610 615 620  
Pro Pro Leu Pro Pro Leu Lys Ile Ser Thr Ser Asn Gly Ser Pro Gly  
625 630 635 640  
Phe Glu Tyr His Gln Pro Gly Asp Lys Phe Glu Ala Ser Lys Asn Asp  
645 650 655  
Leu Gly Gly Cys Asn Gly Thr Ser Ser Met Ala Val Ile Lys Asp Tyr  
660 665 670  
Tyr Ala Leu Lys Glu Asn Glu Ile Cys Val Ser Gln Gly Glu Val Val  
675 680 685  
Gln Val Leu Ala Val Asn Gln Gln Asn Met Cys Leu Val Tyr Gln Pro  
690 695 700  
Ala Ser Asp His Ser Pro Ala Ala Glu Gly Trp Val Pro Gly Ser Ile  
705 710 715 720  
Leu Ala Pro Leu Thr Lys Ala Thr Ala Ala Glu Ser Ser Asp Gly Ser



725

730

735

Ile Lys

&lt;210&gt; 3857

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3857

Met Lys Pro Ser Val Thr Val Leu Phe Pro Thr Phe Gln Leu Met Phe

1

5

10

15

His Val Asp Asn Gly Ala Gly Arg Phe Thr Ala Val Tyr Asp Ala Gly

20

25

30

Val Pro Gly His Leu Cys Asp Gly Gln Trp His Lys Val Thr Ala Asn

35

40

45

Lys Ile Lys His Arg Ile Glu Leu Thr Val Asp Gly Asn Gln Val Glu

50

55

60

Ala Gln Ser Pro Asn Pro Ala Ser Thr Ser Ala Asp Thr Asn Asp Pro

65

70

75

80

Val Phe Val Gly Gly Phe Pro Gly Glu Cys Trp Leu Pro Gln Gln Gln

85

90

95

Phe Leu Cys Ser Leu Met Leu Leu Val Leu Lys Thr Phe Ile Phe Thr

100

105

110

Cys Val

&lt;210&gt; 3858

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3858

Met Ser Ala Leu Val Cys Leu Leu Pro Leu Cys Leu Gln Pro Ile Ser

1 5 10 15

Val Leu Phe Leu Asp His Phe Ser Arg Glu Thr Val Pro Lys Thr Pro

20 25 30

Ile Pro Ser Val Cys Thr Cys Ser Gln Ser Ile Ser Leu Ser Ile Ser

35 40 45

Val Cys Cys Tyr Cys Ser Arg Gly Val Ser Leu Ser Val Pro Ala Ser

50 55 60

His Ala Cys Leu Pro Val Ser Pro Ala Leu Val His Ala Ala His Ile

65 70 75 80

Arg Thr Leu Val Thr Pro Pro Phe Ser Leu Gln Pro His Leu Pro Ser

85 90 95

Gly Ile Phe Ile Ser Val Pro Pro Ala His Ala Asn Leu His Leu Leu

100 105 110

Leu Tyr Pro Ala Pro Leu Pro Val Ser Val Pro Gly Val Pro Leu Cys

115 120 125

His Ala Ala Val Ala Ser Glu Leu Pro Phe Cys Leu Asp Pro Leu

130 135 140

&lt;210&gt; 3859

&lt;211&gt; 128

&lt;212&gt; PRT

<213> Homo sapiens

<400> 3859

Met	Gln	Asp	Pro	Glu	Gly	Ser	Lys	Glu	Ser	Thr	Val	Arg	Arg	Lys	Ser
1				5				10						15	
Thr	Val	Arg	Gln	Leu	Ser	Phe	Arg	Asp	Val	Val	Leu	Arg	Cys	Arg	Pro
				20				25						30	
His	Pro	Gln	Val	His	Pro	Gly	Ser	Gln	Pro	Ser	Glu	Gly	Thr	Met	Glu
				35				40						45	
Ile	Gln	Leu	Leu	Thr	Leu	Gly	Ser	Arg	Arg	Ile	Pro	Asp	His	Ser	Cys
				50				55						60	
Val	His	Pro	Gly	Arg	Glu	Pro	Ser	Glu	Gly	Thr	Val	Glu	Ile	Gln	Leu
				65				70						75	
Leu	Thr	Leu	Ala	Ser	Ile	Arg	Ile	Pro	Asp	Ser	Ser	Gly	Ser	Gln	Thr
				85				90						95	
Ser	Asp	Asn	Ser	Lys	Ile	Ala	Thr	Leu	Tyr	Ser	Ser	Leu	Phe	His	Val
				100				105						110	
Cys	Gln	Phe	Lys	Cys	Thr	Ser	Gln	Ser	Leu	Val	Leu	Gln	Met	Gln	Lys
				115				120						125	

<210> 3860

<211> 694

<212> PRT

<213> Homo sapiens

<400> 3860

Met	Asp	Leu	His	Lys	Gln	Trp	Glu	Asn	Thr	Glu	Thr	Asn	Trp	His	Lys
1				5				10						15	

Glu Lys Met Glu Leu Leu Asp Gln Phe Asp Asn Glu Arg Lys Glu Trp  
20 25 30  
Glu Ser Gln Trp Lys Ile Met Gln Lys Lys Ile Glu Glu Leu Cys Arg  
35 40 45  
Glu Val Lys Leu Trp Arg Lys Ile Asn Ile Asn Glu Ser Ala Lys Ile  
50 55 60  
Ile Asp Leu Tyr His Glu Lys Thr Ile Pro Glu Lys Val Ile Glu Ser  
65 70 75 80  
Ser Pro Asn Tyr Pro Asp Leu Gly Gln Ser Glu Phe Ile Arg Thr Asn  
85 90 95  
His Lys Asp Gly Leu Arg Lys Glu Asn Lys Arg Glu Gln Ser Leu Val  
100 105 110  
Ser Gly Gly Asn Gln Met Cys Lys Glu Gln Lys Ala Thr Lys Lys Ser  
115 120 125  
Lys Val Gly Phe Leu Asp Pro Leu Ala Thr Asp Asn Gln Lys Glu Cys  
130 135 140  
Glu Ala Trp Pro Asp Leu Arg Thr Ser Glu Glu Asp Ser Lys Ser Cys  
145 150 155 160  
Ser Gly Ala Leu Ser Thr Ala Leu Glu Glu Leu Ala Lys Val Ser Glu  
165 170 175  
Glu Leu Cys Ser Phe Gln Glu Glu Ile Arg Lys Arg Ser Asn His Arg  
180 185 190  
Arg Met Lys Ser Asp Ser Phe Leu Gln Glu Met Pro Asn Val Thr Asn  
195 200 205  
Ile Pro His Gly Asp Pro Met Ile Asn Asn Asp Gln Cys Ile Leu Pro  
210 215 220  
Ile Ser Leu Glu Lys Glu Lys Gln Lys Asn Arg Lys Asn Leu Ser Cys  
225 230 235 240  
Thr Asn Val Leu Gln Ser Asn Ser Thr Lys Lys Cys Gly Ile Asp Thr

	245		250		255
Ile Asp Leu Lys Arg Asn Glu Thr Pro Pro Val Pro Pro Pro Arg Ser					
	260		265		270
Thr Ser Arg Asn Phe Pro Ser Ser Asp Ser Glu Gln Ala Tyr Glu Arg					
	275		280		285
Trp Lys Glu Arg Leu Asp His Asn Ser Trp Val Pro His Glu Gly Arg					
	290		295		300
Ser Lys Arg Asn Tyr Asn Pro His Phe Pro Leu Arg Gln Gln Glu Met					
305		310		315	320
Ser Met Leu Tyr Pro Asn Glu Gly Lys Thr Ser Lys Asp Gly Ile Ile					
	325		330		335
Phe Ser Ser Leu Val Pro Glu Val Lys Ile Asp Ser Lys Pro Pro Ser					
	340		345		350
Asn Glu Asp Val Gly Leu Ser Met Trp Ser Cys Asp Ile Gly Ile Gly					
	355		360		365
Ala Lys Arg Ser Pro Ser Thr Ser Trp Phe Gln Lys Thr Cys Ser Thr					
	370		375		380
Pro Ser Asn Pro Lys Tyr Glu Met Val Ile Pro Asp His Pro Ala Lys					
385		390		395	400
Ser His Pro Asp Leu His Val Ser Asn Asp Cys Ser Ser Ser Val Ala					
	405		410		415
Glu Ser Ser Ser Pro Leu Arg Asn Phe Ser Cys Gly Phe Glu Arg Thr					
	420		425		430
Thr Arg Asn Glu Lys Leu Ala Ala Lys Thr Asp Glu Phe Asn Arg Thr					
	435		440		445
Val Phe Arg Thr Asp Arg Asn Cys Gln Ala Ile Gln Gln Asn His Ser					
	450		455		460
Cys Ser Lys Ser Ser Glu Asp Leu Lys Pro Cys Asp Thr Ser Ser Thr					
465		470		475	480

His Thr Gly Ser Ile Ser Gln Ser Asn Asp Val Ser Gly Ile Trp Lys

485

490

495

Thr Asn Ala His Met Pro Val Pro Met Glu Asn Val Pro Asp Asn Pro

500

505

510

Thr Lys Lys Ser Thr Thr Gly Leu Val Arg Gln Met Gln Gly His Leu

515

520

525

Ser Pro Arg Ser Tyr Arg Asn Met Leu His Glu His Asp Trp Arg Pro

530

535

540

Ser Asn Leu Ser Gly Arg Pro Arg Ser Ala Asp Pro Arg Ser Asn Tyr

545

550

555

560

Gly Val Val Glu Lys Leu Leu Lys Thr Tyr Glu Thr Ala Thr Glu Ser

565

570

575

Ala Leu Gln Asn Ser Lys Cys Phe Gln Asp Asn Trp Thr Lys Cys Asn

580

585

590

Ser Asp Val Ser Gly Gly Ala Thr Leu Ser Gln His Leu Glu Met Leu

595

600

605

Gln Met Glu Gln Gln Phe Gln Gln Lys Thr Ala Val Trp Gly Gly Gln

610

615

620

Glu Val Lys Gln Gly Ile Asp Pro Lys Lys Ile Thr Glu Glu Ser Met

625

630

635

640

Ser Val Asn Ala Ser His Gly Lys Gly Phe Ser Arg Pro Ala Arg Pro

645

650

655

Ala Asn Arg Arg Leu Pro Ser Arg Trp Ala Ser Arg Ser Pro Ser Ala

660

665

670

Pro Pro Ala Leu Arg Arg Thr Thr His Asn Tyr Thr Ile Ser Leu Arg

675

680

685

Ser Glu Ala Leu Met Val

690

&lt;210&gt; 3861

&lt;211&gt; 1082

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3861

Met Asp Thr Ser Ser Ser Ala His Pro His Leu Pro Ser Leu Lys Ala

1 5 10 15

Glu Glu Ser Gln Met Lys Thr Gln Val Ile Thr His Arg Glu Asn Ser

20 25 30

Arg Leu Ile Met Gln Lys Gln Lys Lys Glu Leu Glu Ala Ser Asn Ala

35 40 45

Lys Gln Ser Ile Gln Leu Gln Lys Leu Phe Gln Arg Asn Val Leu Asp

50 55 60

Ser Phe Tyr Ser Tyr Val Pro Leu Ser Pro Lys Arg Lys Asp Gln Lys

65 70 75 80

Gly Arg Leu Thr Ile Arg Asp Leu Lys Arg Glu Leu Ser Thr Lys Tyr

85 90 95

Leu Thr Met Lys Ile Gln Asn His Pro Ile Pro Gln Met Leu Asn Ile

100 105 110

Thr Gly Arg Gly Thr Pro Ser Asn Arg Lys Lys Leu Glu Tyr Asp Val

115 120 125

Lys Leu Lys Asn Ile Ala Ser Trp Ser Lys Asp Val Ser Gly Ile Phe

130 135 140

Ile Arg Ser Leu Ser Ile Ser Ile Met Arg Ser Pro His Thr Asp Pro

145 150 155 160

Lys Thr Asn Leu Glu Arg Glu Lys Arg Ile Cys Leu Pro Lys Phe Gln

165 170 175

Glu Lys Ser Pro Asn Thr Ser Glu Met Ser Lys Arg Asp Thr Leu Thr  
 180 185 190  
 Ile Val Lys Gly Glu Gln Asn Phe Thr Asn Thr Val Pro Gln Asp Pro  
 195 200 205  
 Gln Pro Phe Ala Val Asp Lys Gln Gln Met Gln Lys Leu Pro Asn Val  
 210 215 220  
 Lys Ser Glu Ala Asn Leu Arg Ser Glu Met Asn Lys Lys Tyr Leu Lys  
 225 230 235 240  
 Ala Gln Thr Lys Glu Arg Ile Val Pro Glu His Asp Val Ser Arg Ile  
 245 250 255  
 Ile Lys Lys Pro Asp Leu Arg Ile Ile Glu Gln Glu Glu Lys Ile Leu  
 260 265 270  
 Lys Arg Ile Leu Thr Pro Thr Glu Cys Pro Ser Met Leu Glu Asp Pro  
 275 280 285  
 Lys Leu Pro Lys Gln Arg Asp Gln Ser Glu Pro Val Trp Asp Met Thr  
 290 295 300  
 Thr Gln Lys Val Gln Gln Gln Lys Ala Phe Pro Gly Thr Val Pro Ile  
 305 310 315 320  
 Pro Pro Gln Val Lys Ser Ser Glu Val Lys Ile Val Ala Asp Ser Thr  
 325 330 335  
 Asn Ala Glu His Leu Leu Pro Ile Cys Glu Ala Thr Lys Ala Ile Ser  
 340 345 350  
 Glu Ser Gln Val Lys Asn Met Ile Gln Asp Lys Val Ser Ser Asp Lys  
 355 360 365  
 Leu Asp Asn Ile Gln Ala Tyr Lys Pro Asp Asp Leu Lys Ser Pro Pro  
 370 375 380  
 Phe Pro Glu Gly Pro Asp Thr Ile Ser Thr Ala Ile Tyr Pro Lys Thr  
 385 390 395 400  
 Gln His Lys Ser Leu Leu Glu Gln Phe Thr Pro Lys Glu Lys Asn Lys



405	410	415
Leu Thr Ser His Leu Glu Ser Lys Ala Leu Glu Ile Gln Leu Asn Leu		
420	425	430
Ile Pro Glu Met Ala Arg Lys Ser Leu Gln Met Phe Asn Phe Tyr Pro		
435	440	445
Lys Gly Thr Ile Ser Lys Asp Asn Ser Trp Arg Phe Tyr Ser Arg His		
450	455	460
Lys Thr Met Asn Phe Met Ser Leu Glu Gly Thr Asp Thr Ile Glu Pro		
465	470	475
480		
Asn Ser Lys His Lys His Gln Lys Asp Ser Pro Leu Ala Ser Asn Met		
485	490	495
Lys Thr Leu Ile Val Asp Val Ser Ser Asp Ser Glu Glu Thr Ile Thr		
500	505	510
Lys Leu Gln Ser Ile Asn Lys Leu Glu Asn Gly Thr Ser Ala Val Thr		
515	520	525
Ser Ala Ser Glu Met Leu Leu Pro His Thr Leu Gln Asn His Ser Val		
530	535	540
Glu Glu Lys Gly Lys Leu Leu Met His Phe Ser Val Lys Thr Leu Glu		
545	550	555
560		
Ile Gln Met Lys Ala Phe Pro Arg Ile Val Arg Glu Ser Tyr Ala Met		
565	570	575
Thr Ser Ala His Glu Arg Lys Lys Pro Leu Ser Asn Cys Ile His Pro		
580	585	590
Gly Phe Thr Gly Pro Lys Arg Gln Asn Arg Ile Leu Leu Leu Ser Glu		
595	600	605
Glu Lys Ser Leu His Gln Ile Asp Leu Asp Leu Gln Tyr Lys Tyr Leu		
610	615	620
Arg Phe Pro Leu Gly Leu Pro Val Gly Ser Thr Phe Pro Lys Pro Asn		
625	630	635
640		

Val Leu Pro Lys His Ser Lys Leu Asn Thr Ile Ala Val Cys Lys Asn  
645 650 655  
Val Asn Ala Gly Gly Gln Ser Gly Ser Leu Ser Ile Asp Thr Glu Leu  
660 665 670  
Leu Glu Gln His Ile Ser Phe Lys Lys Gln Ser Pro His Glu Asn Ser  
675 680 685  
Ser Leu Ile Arg Lys Phe Pro Gln Pro Thr Leu Val Cys Ala Ser Asp  
690 695 700  
Arg Asp Leu His Ser Pro Arg Lys Lys Asp Thr Gln Val Leu Ser Glu  
705 710 715 720  
Ser Glu Phe His Val Thr Pro Glu Lys Asn Lys Gln Tyr His Val Trp  
725 730 735  
Phe Gln Glu Arg Asn Thr Cys Glu Ser Val Asp Leu Arg Thr Gln Arg  
740 745 750  
Asn Ala Thr Gly Ser Ala Val Ser Cys Glu Thr Gln Ile Ser Glu Asp  
755 760 765  
Phe Val Asp Ile Gln Thr Asp Ile Glu Ser Pro Ala Asp Leu Asp Glu  
770 775 780  
Cys Ser Cys Leu Glu Val Ser Glu Ser Glu Glu Cys Val Phe Leu Glu  
785 790 795 800  
Ala Asn Ser Tyr Leu Ser Gln Glu Ser Glu Asn Ile Leu Phe Glu Leu  
805 810 815  
Gln Thr Gly Ile Pro Leu Glu Asn Val Tyr Lys Ile Thr Thr Asp Leu  
820 825 830  
Lys Ser Phe Tyr Ser Glu Asp Ser Gly Ser His Cys Thr Arg Glu Cys  
835 840 845  
Arg Lys Glu Thr Leu Ile Ile Thr Pro Pro Ser Cys Lys Ser His Lys  
850 855 860  
Ser Ser Lys Tyr Arg Ser Ser Ser Lys Met Lys Ser Pro Asp Trp Leu

865                      870                      875                      880  
Cys His Ser Ser Ser Asn Thr Ala Glu Ile Gln Ser Arg Ser Ser Ser  
                         885                      890                      895  
Val Ser Phe Ser Glu Glu Lys Ile Ser Trp Thr Thr Asn Ser Arg Thr  
                         900                      905                      910  
Ser Tyr Ser Ser Ala Pro Leu Thr Glu Ser Asn Ile Lys Ser His Leu  
                         915                      920                      925  
Ala Lys Asn Gln Gly Lys Ser His Arg His Pro Glu Ser Gln Glu Arg  
                         930                      935                      940  
Lys Lys Ala Arg Ser Asp Leu Phe Arg Lys Asn Ser Ser His Trp Asp  
945                      950                      955                      960  
His Asp Tyr Ser Cys Thr His Ser Lys Gly Lys Arg Asp Arg Lys Lys  
                         965                      970                      975  
Arg Val Tyr Asp Tyr Glu Ser Glu Arg Leu Asp Cys Phe Gln Ser Lys  
                         980                      985                      990  
His Lys Ser Ala Ser Lys Pro His His Asp Asp Ile Asn Phe Tyr Ser  
                         995                      1000                      1005  
Glu Arg Lys Gln Asn Arg Pro Phe Phe Phe Ala Cys Val Pro Ala Asp  
1010                      1015                      1020  
Ser Leu Glu Val Ile Pro Lys Thr Ile Arg Trp Thr Ile Pro Pro Glu  
1025                      1030                      1035                      1040  
Thr Leu Arg Lys Arg Asn Phe Arg Ile Pro Leu Val Ala Lys Ile Ser  
                         1045                      1050                      1055  
Ser Ser Trp Asn Ile Trp Ser Ser Ser Lys Lys Leu Leu Gly Ser Leu  
                         1060                      1065                      1070  
Ser Gly Ser Leu Thr Thr Val Phe His Ser  
                         1075                      1080

&lt;210&gt; 3862

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3862

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Met Ser Ser Thr Lys Asn Thr Ser Gln Ser Ile Arg Glu Lys Phe Arg
  1           5           10           15
Trp Ala Pro Phe Tyr Asp Cys Phe Pro Pro Gln Thr Cys Phe Trp Met
           20           25           30
Ile Gly Cys His Asp Pro Gly Val Leu Gly Phe His Thr Cys Leu Gly
           35           40           45
Gln Glu Ser Ser Leu Cys Leu His Val Pro Ser Asp Gly Phe Val Val
           50           55           60
His Gln Gly Arg Ala Gly Gly Asn Pro Thr Val Ala Asp Leu Arg Leu
           65           70           75           80
Leu Glu Lys Leu Val Leu His Pro Thr Cys Pro Ser Ser Leu Ile Pro
           85           90           95
Glu Gly His Pro Val Pro Leu Leu Leu Gly Lys Val Pro Pro Ser Thr
           100          105          110
Glu Ser Phe Gly Cys His Gly Cys Gln Gly Ala Lys Gly Thr Gly Phe
           115          120          125
Cys Trp Val Gln Arg Arg Trp His Gln Gly Tyr Leu Gln Val Ala Gly
           130          135          140
Cys Arg Cys Gly Val Val Cys
           145          150

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&lt;210&gt; 3863

&lt;211&gt; 786

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3863

Met Phe Thr Asp Phe Leu Ser Phe Met Val Leu Phe Asn Phe Ile Ile

1 5 10 15

Pro Val Ser Met Tyr Val Thr Val Glu Met Gln Lys Phe Leu Gly Ser

20 25 30

Phe Phe Ile Ser Trp Asp Lys Asp Phe Tyr Asp Glu Glu Ile Asn Glu

35 40 45

Gly Ala Leu Val Asn Thr Ser Asp Leu Asn Glu Glu Leu Gly Gln Val

50 55 60

Asp Tyr Val Phe Thr Asp Lys Thr Gly Thr Leu Thr Glu Asn Ser Met

65 70 75 80

Glu Phe Ile Glu Cys Cys Ile Asp Gly His Lys Tyr Lys Gly Val Thr

85 90 95

Gln Glu Val Asp Gly Leu Ser Gln Thr Asp Gly Thr Leu Thr Tyr Phe

100 105 110

Asp Lys Val Asp Lys Asn Arg Glu Glu Leu Phe Leu Arg Ala Leu Cys

115 120 125

Leu Cys His Thr Val Glu Ile Lys Thr Asn Asp Ala Val Asp Gly Ala

130 135 140

Thr Glu Ser Ala Glu Leu Thr Tyr Ile Ser Ser Ser Pro Asp Glu Ile

145 150 155 160

Ala Leu Val Lys Gly Ala Lys Arg Tyr Gly Phe Thr Phe Leu Gly Asn

165 170 175

Arg Asn Gly Tyr Met Arg Val Glu Asn Gln Arg Lys Glu Ile Glu Glu

180 185 190

Tyr Glu Pro Leu His Thr Leu Asn Phe Asp Ala Val Arg Arg Arg Met  
 195 200 205  
 Ser Val Ile Val Lys Thr Gln Glu Gly Asp Ile Leu Leu Phe Cys Lys  
 210 215 220  
 Gly Ala Asp Ser Ala Val Phe Pro Arg Val Gln Asn His Glu Ile Glu  
 225 230 235 240  
 Leu Thr Lys Val His Val Glu Arg Asn Ala Met Asp Gly Tyr Arg Thr  
 245 250 255  
 Leu Cys Val Ala Phe Lys Glu Ile Ala Pro Asp Asp Tyr Glu Arg Ile  
 260 265 270  
 Asn Arg Gln Leu Ile Glu Ala Lys Met Ala Leu Gln Asp Arg Glu Glu  
 275 280 285  
 Lys Met Glu Lys Val Phe Asp Asp Ile Glu Thr Asn Met Asn Leu Ile  
 290 295 300  
 Gly Ala Thr Ala Val Glu Asp Lys Leu Gln Asp Gln Ala Ala Glu Thr  
 305 310 315 320  
 Ile Glu Ala Leu His Ala Ala Gly Leu Lys Val Trp Val Leu Thr Gly  
 325 330 335  
 Asp Lys Met Glu Thr Ala Lys Ser Thr Cys Tyr Ala Cys Arg Leu Phe  
 340 345 350  
 Gln Thr Asn Thr Glu Leu Leu Glu Leu Thr Thr Lys Thr Ile Glu Glu  
 355 360 365  
 Ser Glu Arg Lys Glu Asp Arg Leu His Glu Leu Leu Ile Glu Tyr Arg  
 370 375 380  
 Lys Lys Leu Leu His Glu Phe Pro Lys Ser Thr Arg Ser Phe Lys Lys  
 385 390 395 400  
 Ala Trp Thr Glu His Gln Glu Tyr Gly Leu Ile Ile Asp Gly Ser Thr  
 405 410 415  
 Leu Ser Leu Ile Leu Asn Ser Ser Gln Asp Ser Ser Ser Asn Asn Tyr

420 425 430  
Lys Ser Ile Phe Leu Gln Ile Cys Met Lys Cys Thr Ala Val Leu Cys  
435 440 445  
Cys Arg Met Ala Pro Leu Gln Lys Ala Gln Ile Val Arg Met Val Lys  
450 455 460  
Asn Leu Lys Gly Ser Pro Ile Thr Leu Ser Ile Gly Asp Gly Ala Asn  
465 470 475 480  
Asp Val Ser Met Ile Leu Glu Ser His Val Gly Ile Gly Ile Lys Gly  
485 490 495  
Lys Glu Gly Arg Gln Ala Ala Arg Asn Ser Asp Tyr Ser Val Pro Lys  
500 505 510  
Phe Lys His Leu Lys Lys Leu Leu Leu Ala His Gly His Leu Tyr Tyr  
515 520 525  
Val Arg Val Ala His Leu Val Gln Tyr Phe Phe Tyr Lys Asn Leu Cys  
530 535 540  
Phe Ile Leu Pro Gln Phe Leu Tyr Gln Phe Phe Cys Gly Phe Ser Gln  
545 550 555 560  
Gln Pro Leu Tyr Asp Ala Ala Tyr Leu Thr Met Tyr Asn Ile Cys Phe  
565 570 575  
Thr Ser Leu Pro Ile Leu Ala Tyr Ser Leu Leu Glu Gln His Ile Asn  
580 585 590  
Ile Asp Thr Leu Thr Ser Asp Pro Arg Leu Tyr Met Lys Ile Ser Gly  
595 600 605  
Asn Ala Met Leu Gln Leu Gly Pro Phe Leu Tyr Trp Thr Phe Leu Ala  
610 615 620  
Ala Phe Glu Gly Thr Val Phe Phe Phe Gly Thr Tyr Phe Leu Phe Gln  
625 630 635 640  
Thr Ala Ser Leu Glu Glu Asn Gly Lys Val Tyr Gly Asn Trp Thr Phe  
645 650 655

Gly Thr Ile Val Phe Thr Val Leu Val Phe Thr Val Thr Leu Lys Leu

660

665

670

Ala Leu Asp Thr Arg Phe Trp Thr Trp Ile Asn His Phe Val Ile Trp

675

680

685

Gly Ser Leu Ala Phe Tyr Val Phe Phe Ser Phe Phe Trp Gly Gly Ile

690

695

700

Ile Trp Pro Phe Leu Lys Gln Gln Arg Met Tyr Phe Val Phe Ala Gln

705

710

715

720

Met Leu Ser Ser Val Ser Thr Trp Leu Ala Ile Ile Leu Leu Ile Phe

725

730

735

Ile Ser Leu Phe Pro Glu Ile Leu Leu Ile Val Leu Lys Asn Val Arg

740

745

750

Arg Arg Ser Ala Arg Val Thr Lys Arg Leu Pro Ser Ser Gly Thr Ser

755

760

765

Ala Ile Phe Met Leu Ser Gln Thr Ser Ser Asn His Ser Phe Ser Trp

770

775

780

Ser Glu

785

<210> 3864

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3864

Met Ser Ser Arg Ser Leu His Ser Gln Gln Trp Thr Trp Arg Met Gly

1

5

10

15

Ser Ala Arg Pro Thr Leu Thr Gly Ser Ala His Pro Thr Leu Arg Gly



20 25 30  
 Ser Ala Arg Pro Thr Leu Thr Gly Ser Ala His Pro Thr Leu Thr Gly  
 35 40 45  
 Ser Ala His Pro His Ser Trp Pro Cys Pro Ala Pro Gly Ala Ile Gly  
 50 55 60  
 Val Ala Leu Ile Gln Pro Leu Phe Leu Ser Gly Pro Phe Pro His Val  
 65 70 75 80  
 Ala Leu His Thr His Pro His Ser Gly Pro Ser Ala Thr Glu Gln Asn  
 85 90 95  
 His Ala Thr Pro Phe Thr Arg Pro Pro Arg Arg Gly Glu Gly Leu Pro  
 100 105 110  
 Ala Glu Cys Leu Ala Leu His Gln His Leu Leu Ser Ser Pro Thr Thr  
 115 120 125  
 Pro Ala Pro Ala Ser Ser Arg Pro Arg Ser Ser Ser Ser Ser Glu Pro  
 130 135 140  
 His Leu  
 145

<210> 3865

<211> 854

<212> PRT

<213> Homo sapiens

<400> 3865

Met Lys Val Glu Ala Cys Thr Trp Ala Gly Tyr Ser Gly Leu Tyr Glu  
 1 5 10 15  
 Ala Ile Glu Ser Trp Asp Phe Lys Lys Ile Glu Lys Leu Glu Glu Tyr  
 20 25 30

Arg Leu Leu Leu Lys Arg Leu Gln Pro Glu Phe Lys Thr Arg Ile Ile  
 35 40 45  
 Pro Thr Asp Ile Ile Ser Asp Leu Ser Glu Cys Leu Ile Asn Gln Glu  
 50 55 60  
 Cys Glu Glu Ile Leu Gln Ile Cys Ser Thr Lys Gly Met Met Ala Gly  
 65 70 75 80  
 Ala Glu Lys Leu Val Glu Cys Leu Leu Arg Ser Asp Lys Glu Asn Trp  
 85 90 95  
 Pro Lys Thr Leu Lys Leu Ala Leu Glu Lys Glu Arg Asn Lys Phe Ser  
 100 105 110  
 Glu Leu Trp Ile Val Glu Lys Gly Ile Lys Asp Val Glu Thr Glu Asp  
 115 120 125  
 Leu Glu Asp Lys Met Glu Thr Ser Asp Ile Gln Ile Phe Tyr Gln Glu  
 130 135 140  
 Asp Pro Glu Cys Gln Asn Leu Ser Glu Asn Ser Cys Pro Pro Ser Glu  
 145 150 155 160  
 Val Ser Asp Thr Asn Leu Tyr Ser Pro Phe Lys Pro Arg Asn Tyr Gln  
 165 170 175  
 Leu Glu Leu Ala Leu Pro Ala Met Lys Gly Lys Asn Thr Ile Ile Cys  
 180 185 190  
 Ala Pro Thr Gly Cys Gly Lys Thr Phe Val Ser Leu Leu Ile Cys Glu  
 195 200 205  
 His His Leu Lys Lys Phe Pro Gln Gly Gln Lys Gly Lys Val Val Phe  
 210 215 220  
 Phe Ala Asn Gln Ile Pro Val Tyr Glu Gln Gln Lys Ser Val Phe Ser  
 225 230 235 240  
 Lys Tyr Phe Glu Arg His Gly Tyr Arg Val Thr Gly Ile Ser Gly Ala  
 245 250 255  
 Thr Ala Glu Asn Val Pro Val Glu Gln Ile Val Glu Asn Asn Asp Ile

260	265	270
Ile Ile Leu Thr Pro Gln Ile Leu Val Asn Asn Leu Lys Lys Gly Thr		
275	280	285
Ile Pro Ser Leu Ser Ile Phe Thr Leu Met Ile Phe Asp Glu Cys His		
290	295	300
Asn Thr Ser Lys Gln His Pro Tyr Asn Met Ile Met Phe Asn Tyr Leu		
305	310	315
320		
Asp Gln Lys Leu Gly Gly Ser Ser Gly Pro Leu Pro Gln Val Ile Gly		
325	330	335
Leu Thr Ala Ser Val Gly Val Gly Asp Ala Lys Asn Thr Asp Glu Ala		
340	345	350
Leu Asp Tyr Ile Cys Lys Leu Cys Ala Ser Leu Asp Ala Ser Val Ile		
355	360	365
Ala Thr Val Lys His Asn Leu Glu Glu Leu Glu Gln Val Val Tyr Lys		
370	375	380
Pro Gln Lys Phe Phe Arg Lys Val Glu Ser Arg Ile Ser Asp Lys Phe		
385	390	395
400		
Lys Tyr Ile Ile Ala Gln Leu Met Arg Asp Thr Glu Ser Leu Ala Lys		
405	410	415
Arg Ile Cys Lys Asp Leu Glu Asn Leu Ser Gln Ile Gln Asn Arg Glu		
420	425	430
Phe Gly Thr Gln Lys Tyr Glu Gln Trp Ile Val Thr Val Gln Lys Ala		
435	440	445
Cys Met Val Phe Gln Met Pro Asp Lys Asp Glu Glu Ser Arg Ile Cys		
450	455	460
Lys Ala Leu Phe Leu Tyr Thr Ser His Leu Arg Lys Tyr Asn Asp Ala		
465	470	475
480		
Leu Ile Ile Ser Glu His Ala Arg Met Lys Asp Ala Leu Asp Tyr Leu		
485	490	495

Lys Asp Phe Phe Ser Asn Val Arg Ala Ala Gly Phe Asp Glu Ile Glu  
500 505 510  
Gln Asp Leu Thr Gln Arg Phe Glu Glu Lys Leu Gln Glu Leu Glu Ser  
515 520 525  
Val Ser Arg Asp Pro Ser Asn Glu Asn Pro Lys Leu Glu Asp Leu Cys  
530 535 540  
Phe Ile Leu Gln Glu Glu Tyr His Leu Asn Pro Glu Thr Ile Thr Ile  
545 550 555 560  
Leu Phe Val Lys Thr Arg Ala Leu Val Asp Ala Leu Lys Asn Trp Ile  
565 570 575  
Glu Gly Asn Pro Lys Leu Ser Phe Leu Lys Pro Gly Ile Leu Thr Gly  
580 585 590  
Arg Gly Lys Thr Asn Gln Asn Thr Gly Met Thr Leu Pro Ala Gln Lys  
595 600 605  
Cys Ile Leu Asp Ala Phe Lys Ala Ser Gly Asp His Asn Ile Leu Ile  
610 615 620  
Ala Thr Ser Val Ala Asp Glu Gly Ile Asp Ile Ala Gln Cys Asn Leu  
625 630 635 640  
Val Ile Leu Tyr Glu Tyr Val Gly Asn Val Ile Lys Met Ile Gln Thr  
645 650 655  
Arg Gly Arg Gly Arg Ala Arg Gly Ser Lys Cys Phe Leu Leu Thr Ser  
660 665 670  
Asn Ala Gly Val Ile Glu Lys Glu Gln Ile Asn Met Tyr Lys Glu Lys  
675 680 685  
Met Met Asn Asp Ser Ile Leu Arg Leu Gln Thr Trp Asp Glu Ala Val  
690 695 700  
Phe Arg Glu Lys Ile Leu His Ile Gln Thr His Glu Lys Phe Ile Arg  
705 710 715 720  
Asp Ser Gln Glu Lys Pro Lys Pro Val Pro Asp Lys Glu Asn Lys Lys

725                      730                      735  
 Leu Leu Cys Arg Lys Cys Lys Ala Leu Ala Cys Tyr Thr Ala Asp Val  
 740                      745                      750  
 Arg Val Ile Glu Glu Cys His Tyr Thr Val Leu Gly Asp Ala Phe Lys  
 755                      760                      765  
 Glu Cys Phe Val Ser Arg Pro His Pro Lys Pro Lys Gln Phe Ser Ser  
 770                      775                      780  
 Phe Glu Lys Arg Ala Lys Ile Phe Cys Ala Arg Gln Asn Cys Ser His  
 785                      790                      795                      800  
 Asp Trp Gly Ile His Val Lys Tyr Lys Thr Phe Glu Ile Pro Val Ile  
 805                      810                      815  
 Lys Ile Glu Ser Phe Val Val Glu Asp Ile Ala Thr Gly Val Gln Thr  
 820                      825                      830  
 Leu Tyr Ser Lys Trp Lys Asp Phe His Phe Glu Lys Ile Pro Phe Asp  
 835                      840                      845  
 Pro Ala Glu Met Ser Lys  
 850

&lt;210&gt; 3866

&lt;211&gt; 1205

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3866

Met Glu Gln Pro Asn Ser Lys Gly Tyr Ser Leu Gly Arg Thr Pro Gln  
 1                      5                      10                      15  
 Gly Pro Glu Cys Ser Ser Ala Pro Ala Val Gln Val Gly Thr His Arg  
 20                      25                      30

Gly Leu Glu Tyr Asn Pro Gly Lys Ile Leu Pro Gly Ser Asp Tyr Gly  
35 40 45  
Leu Gly Asn Pro Pro Ala Leu Asp Pro Lys Leu Pro His Leu Pro Leu  
50 55 60  
Pro Pro Ala Pro Pro Thr Leu Ser Asp Leu Gly Gln Pro Arg Lys Ser  
65 70 75 80  
Pro Leu Thr Gly Thr Asp Lys Lys Tyr Pro Leu Met Lys Gln Arg Gly  
85 90 95  
Phe Tyr Ser Asp Ile Leu Ser Pro Gly Thr Leu Asp Gln Leu Gly Glu  
100 105 110  
Val Cys Arg Gly Pro Arg Met Ser Gln Asn Leu Leu Arg Gln Ala Asp  
115 120 125  
Leu Asp Lys Phe Thr Pro Arg Val Gly Ser Phe Glu Val Pro Glu Asp  
130 135 140  
Phe Gln Glu Arg Met Glu Gln Gln Cys Ile Gly Ser Thr Thr Arg Leu  
145 150 155 160  
Leu Ala Gln Thr Asp Phe Pro Leu Gln Ala Tyr Glu Pro Lys Met Gln  
165 170 175  
Val Pro Phe Gln Val Leu Pro Gly Gln His Pro Arg Lys Ile Glu Ile  
180 185 190  
Glu Arg Arg Lys Gln Gln Tyr Leu Ser Leu Asp Ile Glu Gln Leu Leu  
195 200 205  
Phe Ser Gln Gly Ile Asp Ser Asn Lys Leu Met Pro Arg His Leu Asp  
210 215 220  
His Gln His Pro Gln Thr Ile Glu Gln Gly His Asp Pro Ile Phe Pro  
225 230 235 240  
Ile Tyr Leu Pro Leu Lys Val Phe Asp Asn Glu Asp Phe Asp Cys Arg  
245 250 255  
Thr Pro Arg Glu Trp Ile Asn Met Gly Leu Glu Pro Gly Ser Leu Asp

260 265 270  
Arg Lys Pro Val Pro Gly Lys Ala Leu Leu Pro Thr Asp Asp Phe Leu  
275 280 285  
Gly His Glu Asp Pro Lys Ser Gln Lys Leu Lys Tyr Lys Trp Cys Glu  
290 295 300  
Val Gly Val Leu Asp Tyr Asp Glu Glu Lys Lys Leu Tyr Leu Val His  
305 310 315 320  
Lys Thr Asp Glu Lys Gly Leu Val Arg Asp Glu Met Gly Arg Pro Ile  
325 330 335  
Leu Asn Ala Gly Val Thr Thr Glu Gly Arg Pro Pro Leu Gln Val Cys  
340 345 350  
Gln Tyr Trp Val Pro Arg Ile Gln Leu Leu Phe Cys Ala Glu Asp Pro  
355 360 365  
Cys Met Phe Ala Gln Arg Val Val Gln Ala Asn Ala Leu Arg Lys Asn  
370 375 380  
Thr Glu Ala Leu Leu Leu Tyr Asn Leu Tyr Val Asp Cys Met Pro Ser  
385 390 395 400  
Asp Gly Gln His Val Ile Ser Glu Gln Ser Leu Ser Lys Ile Lys Gln  
405 410 415  
Trp Ala Leu Ser Thr Pro Arg Met Arg Lys Gly Pro Ser Val Leu Glu  
420 425 430  
His Leu Ser Ser Leu Ala Arg Glu Val Ser Leu Asp Tyr Glu Arg Ser  
435 440 445  
Met Asn Lys Ile Asn Phe Asp His Val Val Ser Ser Lys Pro Glu Thr  
450 455 460  
Phe Ser Tyr Val Thr Leu Pro Lys Lys Glu Glu Glu Gln Val Pro Glu  
465 470 475 480  
Arg Gly Leu Val Ser Val Pro Lys Tyr His Phe Trp Glu Gln Lys Glu  
485 490 495

Asp Phe Thr Phe Val Ser Leu Leu Thr Arg Pro Glu Val Ile Thr Ala  
500 505 510  
Leu Ser Lys Val Arg Ala Glu Cys Asn Lys Val Thr Ala Met Ser Leu  
515 520 525  
Phe His Ser Ser Leu Ser Lys Tyr Ser His Leu Glu Glu Phe Glu Gln  
530 535 540  
Ile Gln Ser Gln Thr Phe Ser Gln Val Gln Met Phe Leu Lys Asp Ser  
545 550 555 560  
Trp Ile Ser Ser Leu Lys Val Ala Met Arg Ser Ser Leu Arg Asp Met  
565 570 575  
Ser Lys Gly Trp Tyr Asn Leu Tyr Glu Thr Asn Trp Glu Val Tyr Leu  
580 585 590  
Met Ser Lys Leu Arg Lys Leu Met Glu Leu Val Lys Tyr Met Leu Gln  
595 600 605  
Asp Thr Leu Arg Phe Leu Val Gln Asp Ser Leu Ala Ser Phe Ser Gln  
610 615 620  
Phe Ile Ser Asp Thr Cys Cys Ser Val Leu Asn Cys Thr Asp Asp Met  
625 630 635 640  
Val Trp Gly Asp Asp Leu Ile Asn Ser Pro Tyr Arg Pro Arg Lys Asn  
645 650 655  
Pro Leu Phe Ile Met Asp Leu Val Leu Asp Ser Ser Gly Val His Tyr  
660 665 670  
Ser Thr Pro Leu Glu Gln Phe Glu Ala Ser Leu Leu Asn Leu Phe Asp  
675 680 685  
Lys Gly Ile Leu Ala Thr His Ala Val Pro Gln Leu Glu Lys Leu Val  
690 695 700  
Met Glu Asp Ile Phe Ile Ser Gly Asp Pro Leu Leu Glu Ser Val Gly  
705 710 715 720  
Leu His Glu Pro Leu Val Glu Glu Leu Arg Ala Thr Ile Ala Ser Ala



725	730	735
Val Ser Lys Ala Met Ile Pro Leu Gln Ala Tyr Ala Lys Glu Tyr Arg		
740	745	750
Lys Tyr Leu Glu Leu Asn Asn Asn Asp Ile Ala Ser Phe Leu Lys Thr		
755	760	765
Tyr Gln Thr Gln Gly Leu Leu Ala Gln Glu Val Arg Glu Val Val Leu		
770	775	780
Thr His Leu Arg Glu Lys Glu Ile Leu Asp Ser Ser Leu Pro Ser Ser		
785	790	795
Ile Ile Ile Gly Pro Phe Tyr Ile Asn Thr Asp Asn Val Lys Gln Ser		
805	810	815
Leu Ser Lys Lys Arg Lys Ala Leu Ala Thr Ser Val Leu Asp Ile Leu		
820	825	830
Ala Lys Asn Leu His Lys Glu Val Asp Ser Ile Cys Glu Glu Phe Arg		
835	840	845
Ser Ile Ser Arg Lys Ile Tyr Glu Lys Pro Asn Ser Ile Glu Glu Leu		
850	855	860
Ala Glu Leu Arg Glu Trp Met Lys Gly Ile Pro Glu Arg Leu Val Gly		
865	870	875
Leu Glu Glu Arg Ile Val Lys Val Met Asp Asp Tyr Gln Val Met Asp		
885	890	895
Glu Phe Leu Tyr Asn Leu Ser Ser Asp Asp Phe Asn Asp Lys Trp Ile		
900	905	910
Ala Ser Asn Trp Pro Ser Lys Ile Leu Gly Gln Ile Glu Leu Val Gln		
915	920	925
Gln Gln His Val Glu Asp Glu Glu Lys Phe Arg Lys Ile Gln Ile Met		
930	935	940
Asp Gln Asn Asn Phe Gln Glu Lys Leu Glu Gly Leu Gln Leu Val Val		
945	950	955
		960

Ala Gly Phe Ser Ile His Val Glu Ile Ser Arg Ala His Glu Ile Ala  
965 970 975  
Asn Glu Val Arg Arg Val Lys Lys Gln Leu Lys Asp Cys Gln Gln Leu  
980 985 990  
Ala Met Leu Tyr Asn Asn Arg Glu Arg Ile Phe Ser Leu Pro Ile Thr  
995 1000 1005  
Asn Tyr Asp Lys Leu Ser Arg Met Val Lys Glu Phe Gln Pro Tyr Leu  
1010 1015 1020  
Asp Leu Trp Thr Thr Ala Ser Asp Trp Leu Arg Trp Ser Glu Ser Trp  
1025 1030 1035 1040  
Met Asn Asp Pro Leu Ser Ala Ile Asp Ala Glu Gln Leu Glu Lys Asn  
1045 1050 1055  
Val Val Glu Ala Phe Lys Thr Met His Lys Cys Val Lys Gln Phe Lys  
1060 1065 1070  
Asp Met Pro Ala Cys Gln Glu Val Ala Leu Asp Ile Arg Ala Arg Ile  
1075 1080 1085  
Glu Glu Phe Lys Pro Tyr Ile Pro Leu Ile Gln Gly Leu Arg Asn Pro  
1090 1095 1100  
Gly Met Arg Ile Arg His Trp Glu Thr Leu Ser Asn Gln Ile Asn Ile  
1105 1110 1115 1120  
Asn Val Arg Pro Lys Ala Asn Leu Thr Phe Ala Arg Cys Leu Glu Met  
1125 1130 1135  
Asn Leu Gln Asp His Ile Glu Ser Ile Ser Lys Val Ala Glu Val Ala  
1140 1145 1150  
Gly Lys Glu Tyr Ala Ile Glu Gln Val Gly Ser His Gln Arg Ala Gln  
1155 1160 1165  
Pro Leu Gln Pro Gly Pro Ala Gly Gln Pro Asp Leu Leu Leu Trp Gln  
1170 1175 1180  
Pro Gln Pro Leu Gly Arg Met Thr Val Ile Ser Pro Ile Pro Gly Val

1185                      1190                      1195                      1200  
Met Arg Pro Arg Gly  
1205

<210> 3867

<211> 266

<212> PRT

<213> Homo sapiens

<400> 3867

Met Ala Gln Glu Lys Met Glu Leu Asp Leu Glu Pro Asp Thr Ser Tyr  
1                      5                      10                      15  
Gly Gly Thr Leu Arg Arg Ser Ser Ser Ala Pro Leu Ile His Gly Leu  
20                      25                      30  
Ser Asp Leu Ser Gln Val Phe Gln Pro Tyr Thr Leu Arg Thr Arg Arg  
35                      40                      45  
Asn Ser Thr Thr Ile Met Ser Arg His Ser Leu Leu Leu Ser Ser Ser  
50                      55                      60  
Pro Asn Arg Ile Pro Ser Ser Arg Leu His Gln Ile Lys Arg Glu Glu  
65                      70                      75                      80  
Gly Leu Asp Met Val Asn Arg Glu Thr Ala His Glu Arg Glu Met Gln  
85                      90                      95  
Thr Ala Met Gln Ile Ser Gln Ser Trp Asp Glu Ser Leu Ser Leu Ser  
100                      105                      110  
Asp Ser Asp Phe Asp Lys Pro Glu Lys Leu Tyr Ser Pro Lys Arg Ile  
115                      120                      125  
Asp Phe Thr Pro Val Ser Pro Ala Pro Ser Pro Thr Arg Gly Phe Gly  
130                      135                      140

Lys Met Phe Val Ser Ser Ser Gly Leu Pro Pro Ser Pro Val Pro Ser  
 145                      150                      155                      160  
 Pro Arg Arg Phe Ser Arg Arg Ser Gln Ser Pro Val Lys Cys Ile Arg  
                          165                      170                      175  
 Pro Ser Val Leu Gly Pro Leu Lys Arg Lys Gly Glu Met Glu Thr Glu  
                          180                      185                      190  
 Ser Gln Pro Lys Arg Leu Phe Gln Gly Thr Thr Asn Met Leu Ser Pro  
                          195                      200                      205  
 Asp Ala Ala Gln Leu Ser Asp Leu Ser Ser Cys Ser Asp Ile Leu Asp  
                          210                      215                      220  
 Gly Ser Ser Ser Ser Ser Gly Leu Ser Ser Asp Pro Leu Ala Lys Gly  
 225                      230                      235                      240  
 Ser Ala Thr Ala Glu Ser Pro Val Ala Cys Ser Asn Ser Cys Ser Ser  
                          245                      250                      255  
 Phe Ile Leu Met Asp Asp Leu Ser Pro Lys  
                          260                      265

<210> 3868

<211> 910

<212> PRT

<213> Homo sapiens

<400> 3868

Met Thr Lys His Pro Leu Ala Met Tyr Pro Asn Leu Gly Glu Asp Met  
 1                      5                      10                      15  
 Pro Pro Asp Leu Leu Leu Gln Val Leu Lys Pro Leu Asp Pro Glu Arg  
                          20                      25                      30  
 Lys Leu Glu Asp Ala Gly Ser Cys Glu Gly Gln Glu Lys Thr Thr Asp

35 40 45  
Glu Pro Thr Glu Pro Gly Lys Tyr Pro Cys Gly Glu Phe Ser Pro Arg  
50 55 60  
Pro Pro Glu Thr Arg Val Ser Cys Leu Pro Pro Glu Pro Pro Lys Thr  
65 70 75 80  
Pro Val Ser Ser Leu Arg Pro Glu Pro Pro Glu Thr Gly Val Ser His  
85 90 95  
Leu Arg Pro Gln Pro Pro Lys Thr Gln Val Ser Ser Leu His Leu Glu  
100 105 110  
Pro Pro Glu Thr Gly Val Ser His Leu Arg Pro Glu Pro Pro Lys Thr  
115 120 125  
Gln Val Ser Ser Leu His Leu Glu Pro Pro Glu Thr Gly Val Ser His  
130 135 140  
Leu Tyr Leu Glu Pro Ser Gly Thr Gly Val Ser His Leu Cys Pro Glu  
145 150 155 160  
Pro Pro Lys Thr Arg Val Ser His Leu His Arg Glu Pro Pro Glu Thr  
165 170 175  
Gly Val Pro Asp Leu Cys Leu Glu Pro Pro Lys Ser Arg Val Ser His  
180 185 190  
Leu Arg Pro Glu Pro Ser Glu Thr Gly Val Ser His Leu His Pro Glu  
195 200 205  
Pro Pro Lys Thr Leu Val Ser Ser Leu His Pro Glu Pro Pro Glu Thr  
210 215 220  
Gly Val Ser His Leu Cys Pro Glu Pro Pro Glu Thr Arg Val Ser Pro  
225 230 235 240  
Leu Arg Gln Leu Pro Pro Glu Ala Gly Val Ser His Leu Cys Pro Glu  
245 250 255  
Pro Pro Lys Thr Arg Val Pro Pro Leu Arg Pro Glu Thr Pro Lys Asn  
260 265 270

Gly Val Ser Pro Leu Phe Pro Glu Pro Pro Lys Thr Arg Ile Ser Asn  
275 280 285

Leu Arg Ser Glu Pro Pro Lys Ile Gly Val Ser His Leu Cys Leu Glu  
290 295 300

Pro Pro Lys Thr Arg Gly Ser His Leu Arg Pro Glu Pro Pro Glu Thr  
305 310 315 320

Gly Val Ser His Leu Arg Pro Glu Pro Pro Lys Thr Arg Val Ser Ser  
325 330 335

Leu His Leu Glu Pro Pro Glu Thr Gly Val Ser His Leu Cys Pro Glu  
340 345 350

Pro Pro Glu Lys Asn Val Ser His Leu Arg Pro Glu Pro Pro Asp Thr  
355 360 365

Gly Val Ser His Leu Cys Pro Glu Pro Pro Lys Thr Arg Val Ser His  
370 375 380

Leu Arg Pro Glu Pro Ser Glu Thr Gly Val Ser His Leu Arg Pro Glu  
385 390 395 400

Pro Pro Lys Ile Leu Val Ser Ser Leu His Gln Ala Pro Pro Glu Ser  
405 410 415

Ser Val Ser His Leu Arg Pro Glu Pro Pro Glu Thr Gly Val Ser His  
420 425 430

Leu Arg Pro Glu Pro Pro Lys Thr Arg Met Tyr Ser Leu Arg Pro Glu  
435 440 445

Pro Pro Asp Thr Gly Val Ser His Leu Cys Pro Glu Pro Pro Lys Thr  
450 455 460

Arg Val Ser Ser Leu Pro Pro Glu Pro Pro Glu Thr Gly Val Ser His  
465 470 475 480

Leu Cys Pro Glu Pro Pro Glu Thr Arg Val Ser His Leu Arg Pro Glu  
485 490 495

Pro Pro Glu Thr Gly Val Ser His Leu Arg Pro Glu Pro Pro Lys Thr

500 505 510  
Arg Met Tyr Ser Leu Arg Pro Glu Pro Pro Asn Thr Gly Val Ser His  
515 520 525  
Leu Cys Pro Glu Pro Pro Lys Thr Arg Val Ser Ser Leu Pro Pro Glu  
530 535 540  
Pro Pro Glu Thr Gly Val Ser His Leu Cys Pro Glu Pro Pro Glu Thr  
545 550 555 560  
Arg Val Ser His Leu Arg Pro Glu Pro Pro Glu Thr Gly Val Ser Arg  
565 570 575  
Leu His Pro Glu Pro Pro Lys Thr Arg Val Ser Ser Leu His Ala Glu  
580 585 590  
Pro Pro Glu Ser Arg Val Ser His Leu Cys Pro Glu Pro Pro Glu Thr  
595 600 605  
Gly Val Ser His Leu Arg Pro Glu Pro Pro Lys Pro Arg Val Ser Ser  
610 615 620  
Leu Arg Pro Glu Pro Leu Glu Thr Arg Val Ser His Leu Arg Pro Glu  
625 630 635 640  
Pro Pro Glu Thr Gly Val Ser His Leu His Pro Glu Leu Pro Lys Pro  
645 650 655  
Arg Val Ser Ser Leu His Leu Glu Pro Pro Lys Thr Arg Arg Val Ser  
660 665 670  
Ser Leu Arg Leu Glu Pro Pro Lys Thr Gly Arg Val Ser Ser Leu Cys  
675 680 685  
Pro Glu Pro Thr Lys Thr Gly Ala Ser His Leu Lys Glu Leu Phe Gln  
690 695 700  
Glu Gly Thr Ser Ser Thr Met Glu Cys Val Ser Asp Ser Leu Gln Arg  
705 710 715 720  
Arg His Thr Ser Arg Lys Leu Arg Asp Phe Lys Trp Ala Gly Asp Leu  
725 730 735

Gly Val Asn Glu Glu Ser Ile Ser Ser Leu Phe Asp Phe Thr Pro Glu  
740 745 750  
Cys Arg Ala Thr Tyr Gln Asp Gln Lys Asn Lys Lys Ala Asn Glu Cys  
755 760 765  
Ser Ser Gly Leu Lys Tyr Ser Met Glu Leu Asp Glu Met Asp Glu Val  
770 775 780  
Lys Phe Phe Ser Gln Glu Lys Asp Leu Asp Gly Lys Ile Gln Asn Ala  
785 790 795 800  
Pro Asn Ser His Ser Ala Gln His Val Lys Met Gly Tyr Gly Ala Trp  
805 810 815  
Tyr Leu Lys Pro Lys Leu Gly Lys Lys Leu Arg Ser Asp Glu Pro Leu  
820 825 830  
Ile Asp Pro Lys Leu Val Leu Glu Lys Pro Asp Glu Pro Asp Ile Leu  
835 840 845  
Asp Gly Leu Tyr Gly Pro Ile Ala Phe Lys Asp Phe Ile Leu Ser Lys  
850 855 860  
Gly Tyr Glu Met Pro Gly Ile Ile Gln Arg Leu Phe Ala Arg Arg Gly  
865 870 875 880  
Trp Thr Tyr Asp Ser Val Lys Thr Pro Ile Gln Arg Ala Met Gln Val  
885 890 895  
Tyr Lys Tyr Lys Glu Asp Val Thr Asp Ala Ser Glu Glu Asp  
900 905 910

&lt;210&gt; 3869

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 3869

Met Arg Glu Trp Glu Asn Arg Asn Arg Gly Leu Arg Glu Leu Glu Glu  
 1 5 10 15  
 Val Ala Gly Ser Ser Arg Thr Arg Glu Gln Leu Val Pro Arg Leu Gly  
 20 25 30  
 Gly Arg Ala Gly Tyr Asp Trp Trp Ala Ser Gly Glu Val Gln Ser Gly  
 35 40 45  
 Arg Glu Glu Ala Gly Glu Ala His Pro Ser Val Ala Glu Ser Ser Leu  
 50 55 60  
 Arg Thr Arg Gly Trp Gly Gly Asp Ser His Ala Met Thr Ala Ser Pro  
 65 70 75 80  
 Val Pro Ala Leu Gln Leu Val Ser Ser Lys Arg Asp Leu Val Leu Val  
 85 90 95  
 Lys Glu Ala Leu Ser Trp Tyr Asp Ala Gln Gln His Cys Arg Leu His  
 100 105 110  
 Tyr Thr Asp Leu Ala Asp Leu Gln Pro Ser Gly Leu Trp Lys Leu Tyr  
 115 120 125  
 Ser Leu Met Thr Ser Thr Pro Ala Trp Ile Gly Leu Phe Phe Asp Ala  
 130 135 140  
 Ser Thr Ser Gly Leu Arg Trp Ser Ser Gly Ser Thr Phe Thr Ala Leu  
 145 150 155 160  
 Glu Trp Gly Gln Lys Leu Pro Glu Phe Gly Val Gly Phe Cys Ala Thr  
 165 170 175  
 Leu Tyr Thr Trp Leu Lys Leu Pro Ser Ile Gly Ala Ala Ser Cys Thr  
 180 185 190  
 Ala Gln Lys Pro Phe Leu Cys Tyr Cys Gly Val Phe Thr Phe Ile Phe  
 195 200 205  
 Gln Ala Trp Ser Phe Pro Gln Gly Pro His Ser Val Ala Gln Ala Gly  
 210 215 220

Val Gln Trp Cys Asp His Ser Ser Leu

225

230

<210> 3870

<211> 127

<212> PRT

<213> Homo sapiens

<400> 3870

Met Glu Lys Ala Ser Gly Ala Leu Arg Cys Gln Gln Lys Arg Cys Ile

1

5

10

15

Ser Glu Leu Thr Val Met Thr Gln Ile Gly Arg Glu Gly Asn Met Trp

20

25

30

Val Arg Val Ala Ala Met Gly Val Asn Met Ile Lys Tyr Gly Gly Gly

35

40

45

Val Gln Ile Ser Trp Thr Trp Leu Gln Ser Val Phe Ile Phe Ser Leu

50

55

60

Ser Glu Arg Val Phe Gly Phe Ser Ile Leu Leu Ile Leu Gln Ala Ile

65

70

75

80

His Tyr Val Pro Trp Glu Val Glu Trp Pro Ser Ser Leu Leu Cys Val

85

90

95

Gly Tyr Thr Ala Cys Leu Thr Ser Leu Trp Val Leu His His Leu His

100

105

110

Ala His Met Ile Pro Leu Phe Glu Leu Met Ala Gly Asn Arg Thr

115

120

125

<210> 3871

&lt;211&gt; 842

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3871

Met Gly Ala Arg Ala Ala Gly Thr Ser Ser Gly Gly Gly Pro Arg Pro

1 5 10 15

Cys Leu Ala Arg Gly Leu Ser Ala Ser Pro Phe Pro Ala Lys Gln Gln

20 25 30

His Pro Gln Ala Gly Ala Ser Pro Ala Glu Leu Gln Gln Arg Ala Tyr

35 40 45

Tyr Arg Ala Arg Gln Asp Ala Ala Ser Gln Pro Gly Leu Gly Phe Leu

50 55 60

Ile Ser Pro Ser Ser Cys Ser Ser Trp Gly Pro Gly Ser Phe Thr Arg

65 70 75 80

Ser Cys Gly Tyr Pro Thr Leu Cys Ser Ser Trp Ile Ser Lys Arg Glu

85 90 95

Pro Gly Glu Leu Ser Gly Val Trp Thr Ser Ala Trp Arg Thr His Ala

100 105 110

Ala Phe Thr Gly Ser Gln Asp Leu Cys Leu Tyr Lys Gly Leu Leu Gly

115 120 125

Ser Ile Tyr Glu Asp Lys Thr Ala Leu Ser Leu Leu Gly Leu Gly Glu

130 135 140

Glu Thr Asn Glu Glu Asp Glu Glu Glu Ser Asp Asn Gln Ser Val His

145 150 155 160

Ser Ser Ser Glu Pro Leu Arg Asn Leu His Leu Asp Ile Gly Ala Leu

165 170 175

Gly Gly Asp Phe Glu Tyr Glu Glu Ser Leu Arg Thr Ser Gln Pro Glu

180 185 190

Glu Lys Lys Asp Val Ser Leu Asp Ser Asp Ala Ala Gly Pro Pro Thr  
195 200 205  
Pro Cys Lys Pro Ser Ser Pro Gly Ala Asp Ser Ser Leu Ser Ser Ala  
210 215 220  
Val Gly Lys Gly Arg Gln Gly Ser Gly Ala Arg Pro Gly Leu Pro Glu  
225 230 235 240  
Lys Glu Glu Asn Glu Lys Ser Glu Pro Lys Ile Cys Arg Asn Leu Val  
245 250 255  
Thr Pro Lys Ala Asp Pro Thr Gly Ser Glu Pro Ala Lys Ala Ser Glu  
260 265 270  
Lys Glu Ala Pro Glu Asp Thr Val Asp Ala Gly Glu Glu Gly Ser Arg  
275 280 285  
Arg Glu Glu Ala Ala Lys Glu Pro Lys Lys Lys Ala Ser Ala Leu Glu  
290 295 300  
Glu Gly Ser Ser Asp Ala Ser Gln Glu Leu Glu Ile Ser Glu His Met  
305 310 315 320  
Lys Glu Pro Gln Leu Ser Asp Ser Ile Ala Ser Asp Pro Lys Ser Phe  
325 330 335  
His Gly Leu Asp Phe Gly Phe Arg Ser Arg Ile Ser Glu His Leu Leu  
340 345 350  
Asp Val Asp Val Leu Ser Pro Val Leu Gly Gly Ala Cys Arg Gln Ala  
355 360 365  
Gln Gln Pro Leu Gly Ile Glu Asp Lys Asp Asp Ser Gln Ser Ser Gln  
370 375 380  
Asp Glu Leu Gln Ser Lys Gln Ser Lys Gly Leu Glu Glu Arg Tyr His  
385 390 395 400  
Arg Leu Ser Pro Pro Leu Pro His Glu Glu Arg Ala Gln Ser Pro Pro  
405 410 415  
Arg Ser Leu Ala Thr Glu Glu Glu Pro Pro Gln Gly Pro Glu Gly Gln

420 425 430  
Pro Glu Trp Lys Glu Ala Glu Glu Leu Gly Glu Asp Ser Ala Ala Ser  
435 440 445  
Leu Ser Leu Gln Leu Ser Leu Gln Arg Arg Ser Thr Glu Pro Val Ala  
450 455 460  
Pro Pro Glu Gln Leu Ser Glu Ala Ala Leu Lys Ala Met Glu Glu Ala  
465 470 475 480  
Val Ala Gln Val Leu Glu Gln Asp Gln Arg His Leu Leu Glu Ser Lys  
485 490 495  
Gln Glu Lys Met Gln Gln Leu Arg Glu Lys Leu Cys Gln Glu Glu Glu  
500 505 510  
Glu Glu Ile Leu Arg Leu His Gln Gln Lys Glu Gln Ser Leu Ser Ser  
515 520 525  
Leu Arg Glu Arg Leu Gln Lys Ala Ile Glu Glu Glu Glu Ala Arg Met  
530 535 540  
Arg Glu Glu Glu Ser Gln Arg Leu Ser Trp Leu Arg Ala Gln Val Gln  
545 550 555 560  
Ser Ser Thr Gln Ala Asp Glu Asp Gln Ile Arg Ala Glu Gln Glu Ala  
565 570 575  
Ser Leu Gln Lys Leu Arg Glu Glu Leu Glu Ser Gln Gln Lys Ala Glu  
580 585 590  
Arg Ala Ser Leu Glu Gln Lys Asn Arg Gln Met Leu Glu Gln Leu Lys  
595 600 605  
Glu Glu Ile Glu Ala Ser Glu Lys Ser Glu Gln Ala Ala Leu Asn Ala  
610 615 620  
Ala Lys Glu Lys Ala Leu Gln Gln Leu Arg Glu Gln Leu Glu Gly Glu  
625 630 635 640  
Arg Lys Glu Ala Val Ala Thr Leu Glu Lys Glu His Ser Ala Glu Leu  
645 650 655

Glu Arg Leu Cys Ser Ser Leu Glu Ala Lys His Arg Glu Val Val Ser  
660 665 670  
Ser Leu Gln Lys Lys Ile Gln Glu Ala Gln Gln Lys Glu Glu Ala Gln  
675 680 685  
Leu Gln Lys Cys Leu Gly Gln Val Glu His Arg Val His Gln Lys Ser  
690 695 700  
Tyr His Val Ala Gly Tyr Glu His Glu Leu Ser Ser Leu Leu Arg Glu  
705 710 715 720  
Lys Arg Gln Glu Val Glu Gly Glu His Glu Arg Arg Leu Asp Lys Met  
725 730 735  
Lys Glu Glu His Gln Gln Val Met Ala Lys Ala Arg Glu Gln Tyr Glu  
740 745 750  
Ala Glu Glu Arg Lys Gln Arg Ala Glu Leu Leu Gly His Leu Thr Gly  
755 760 765  
Glu Leu Glu Arg Leu Gln Arg Ala His Glu Arg Glu Leu Glu Thr Val  
770 775 780  
Arg Gln Glu Gln His Lys Arg Leu Glu Asp Leu Arg Arg Arg His Arg  
785 790 795 800  
Glu Gln Glu Arg Lys Leu Gln Asp Leu Glu Leu Asp Leu Glu Thr Arg  
805 810 815  
Ala Lys Asp Val Lys Ala Arg Leu Ala Leu Leu Glu Val Gln Val Arg  
820 825 830  
Asp Leu Gln Glu Ser Leu Thr Ser Glu Ser  
835 840

&lt;210&gt; 3872

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3872

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Met Leu Trp Arg Lys Gly Met Arg Ser Gln Gly Ser Glu Val Arg Pro
  1             5             10             15
Ala Ile Pro Gln Val Cys Gly Trp Ala Arg Arg Gln Ala Pro Lys Asn
          20             25             30
Leu Thr Cys Asp Pro Gly Cys Pro His Arg Leu Lys Gly Leu Arg Asp
          35             40             45
Leu Glu Thr Gly Asn Met Val Cys Gly Gly Pro Val Asp Pro Gly Val
          50             55             60
Gly Val Arg Asp Gly Asp Arg His Arg Asp Ile Leu Arg Ala Arg Asp
          65             70             75             80
Arg Lys Thr Lys Asn Asp Arg Asn Arg Asp Thr Glu Arg Tyr Arg Glu
          85             90             95
Gly Gln Arg Pro Arg Lys Pro Glu
          100

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&lt;210&gt; 3873

&lt;211&gt; 181

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3873

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Met Leu Ala Arg Pro Gly Val Glu Ala Trp Arg Arg Arg Asp Ala
  1             5             10             15
Arg Leu Arg Ala Gly Val Gly Gly Ala Cys Val Ala Gly Ala Lys Ser
          20             25             30

```

His Gly Ala Gly Leu Gly Ala Gly Arg Arg Ala Arg Ala Glu Thr His  
35 40 45  
Val Thr Ala Ala Arg Arg Arg Asp Gly Trp Asn Phe Ser Asn Pro Lys  
50 55 60  
Ser Arg Asp Arg Pro Pro Leu Ala Cys Ser Arg Ala Leu Gln Asp Pro  
65 70 75 80  
Leu Ala His Gly Ala Val Pro Gly Arg Pro Leu Leu Ala Thr Arg Ala  
85 90 95  
Thr Ala Gly Leu Ser Cys Leu Glu Trp Trp Pro Pro Pro Pro Ala Gly  
100 105 110  
Ala Gly Ala Leu Gln Gly Pro Leu Ala Tyr Cys Ile Val Val Ala Arg  
115 120 125  
Arg Leu Leu Ala Ala Thr Asp Ile Ala Gly Ser Ser Cys Ser Arg Cys  
130 135 140  
Thr Gly Ser Thr Pro Ala Cys Trp Gln Leu Gly Thr Leu Leu Gly Pro  
145 150 155 160  
Leu Ala Pro Thr Val Val Ala Asp Tyr Arg Glu Thr Pro Gly Ala Tyr  
165 170 175  
Ala Val Trp Ser Gln  
180

&lt;210&gt; 3874

&lt;211&gt; 1014

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3874

Met Pro Thr Arg Ser Arg Arg Lys Ala Arg Val Gly Lys Tyr Gly Asp



1	5	10	15
Ser Met Thr Glu Ala Asp Lys Thr Lys Pro Leu Ser Lys Val Ser Ser			
20	25	30	
Ile Ala Val Gln Thr Val Ala Glu Ile Ser Val Gln Thr Glu Pro Val			
35	40	45	
Gly Thr Ile Arg Thr Pro Ser Ile Arg Ala Arg Val Asp Ala Lys Val			
50	55	60	
Glu Ile Ile Lys His Ile Ser Ala Pro Glu Lys Thr Tyr Lys Gly Gly			
65	70	75	80
Ser Leu Gly Cys Gln Thr Glu Ala Asp Ser Asp Thr Gln Ser Pro Gln			
85	90	95	
Tyr Leu Ser Ala Thr Ser Pro Pro Lys Asp Lys Lys Arg Pro Thr Pro			
100	105	110	
Leu Glu Ile Gly Tyr Ser Ser His Leu Arg Ala Asp Ser Thr Val Gln			
115	120	125	
Leu Ala Pro Ser Pro Pro Lys Ser Pro Lys Val Leu Tyr Ser Pro Ile			
130	135	140	
Ser Pro Leu Ser Pro Gly Lys Ala Leu Glu Ser Ala Phe Val Pro Tyr			
145	150	155	160
Glu Lys Pro Leu Pro Asp Asp Ile Ser Pro Gln Lys Val Leu His Pro			
165	170	175	
Asp Met Ala Lys Val Pro Pro Ala Ser Pro Lys Thr Ala Lys Met Met			
180	185	190	
Gln Arg Ser Met Ser Asp Pro Lys Pro Leu Ser Pro Thr Ala Asp Glu			
195	200	205	
Ser Ser Arg Ala Pro Phe Gln Tyr Thr Glu Gly Tyr Thr Thr Lys Gly			
210	215	220	
Ser Gln Thr Met Thr Ser Ser Gly Ala Gln Lys Lys Val Lys Arg Thr			
225	230	235	240

Leu Pro Asn Pro Pro Pro Glu Glu Ile Ser Thr Gly Thr Gln Ser Thr  
245 250 255  
Phe Ser Thr Met Gly Thr Val Ser Arg Arg Arg Ile Cys Arg Thr Asn  
260 265 270  
Thr Met Ala Arg Ala Lys Ile Leu Gln Asp Ile Asp Arg Glu Leu Asp  
275 280 285  
Leu Val Glu Arg Glu Ser Ala Lys Leu Arg Lys Lys Gln Ala Glu Leu  
290 295 300  
Asp Glu Glu Glu Lys Glu Ile Asp Ala Lys Leu Arg Tyr Leu Glu Met  
305 310 315 320  
Gly Ile Asn Arg Arg Lys Glu Ala Leu Leu Lys Glu Arg Glu Lys Arg  
325 330 335  
Glu Arg Ala Tyr Leu Gln Gly Val Ala Glu Asp Arg Asp Tyr Met Ser  
340 345 350  
Asp Ser Glu Val Ser Ser Thr Arg Pro Thr Arg Ile Glu Ser Gln His  
355 360 365  
Gly Ile Glu Arg Pro Arg Thr Ala Pro Gln Thr Glu Phe Ser Gln Phe  
370 375 380  
Ile Pro Pro Gln Thr Gln Thr Glu Ser Gln Leu Val Pro Pro Thr Ser  
385 390 395 400  
Pro Tyr Thr Gln Tyr Gln Tyr Ser Ser Pro Ala Leu Pro Thr Gln Ala  
405 410 415  
Pro Thr Ser Tyr Thr Gln Gln Ser His Phe Glu Gln Gln Thr Leu Tyr  
420 425 430  
His Gln Gln Val Ser Pro Tyr Gln Thr Gln Pro Thr Phe Gln Ala Val  
435 440 445  
Ala Thr Met Ser Phe Thr Pro Gln Val Gln Pro Thr Pro Thr Pro Gln  
450 455 460  
Pro Ser Tyr Gln Leu Pro Ser Gln Met Met Val Ile Gln Gln Lys Pro

465                      470                      475                      480  
Arg Gln Thr Thr Leu Tyr Leu Glu Pro Lys Ile Thr Ser Asn Tyr Glu  
                         485                      490                      495  
Val Ile Arg Asn Gln Pro Leu Met Ile Ala Pro Val Ser Thr Asp Asn  
                         500                      505                      510  
Thr Phe Ala Val Ser His Leu Gly Ser Lys Tyr Asn Ser Leu Asp Leu  
                         515                      520                      525  
Arg Ile Gly Leu Glu Glu Arg Ser Ser Met Ala Ser Ser Pro Ile Ser  
                         530                      535                      540  
Ser Ile Ser Ala Asp Ser Phe Tyr Ala Asp Ile Asp His His Thr Pro  
545                      550                      555                      560  
Arg Asn Tyr Val Leu Ile Asp Asp Ile Gly Glu Ile Thr Lys Gly Thr  
                         565                      570                      575  
Ala Ala Leu Ser Thr Ala Phe Ser Leu His Glu Lys Asp Leu Ser Lys  
                         580                      585                      590  
Thr Asp Arg Leu Leu Arg Thr Thr Glu Thr Arg Arg Ser Gln Glu Val  
                         595                      600                      605  
Thr Asp Phe Leu Ala Pro Leu Gln Ser Ser Ser Arg Leu His Ser Tyr  
                         610                      615                      620  
Val Lys Ala Glu Glu Asp Pro Met Glu Asp Pro Tyr Glu Leu Lys Leu  
625                      630                      635                      640  
Leu Lys His Gln Ile Lys Gln Glu Phe Arg Arg Gly Thr Glu Ser Leu  
                         645                      650                      655  
Asp His Leu Ala Gly Leu Ser His Tyr Tyr His Ala Asp Thr Ser Tyr  
                         660                      665                      670  
Arg His Phe Pro Lys Ser Glu Lys Tyr Ser Ile Ser Arg Leu Thr Leu  
                         675                      680                      685  
Glu Lys Gln Ala Ala Lys Gln Leu Pro Ala Ala Ile Leu Tyr Gln Lys  
                         690                      695                      700

Gln Ser Lys His Lys Lys Ser Leu Ile Asp Pro Lys Met Ser Lys Phe  
705 710 715 720  
Ser Pro Ile Gln Glu Ser Arg Asp Leu Glu Pro Asp Tyr Ser Ser Tyr  
725 730 735  
Met Thr Ser Ser Thr Ser Ser Ile Gly Gly Ile Ser Ser Arg Ala Arg  
740 745 750  
Leu Leu Gln Asp Asp Ile Thr Phe Gly Leu Arg Lys Asn Ile Thr Asp  
755 760 765  
Gln Gln Lys Phe Met Gly Ser Ser Leu Gly Thr Gly Leu Gly Thr Leu  
770 775 780  
Gly Asn Thr Ile Arg Ser Ala Leu Gln Asp Glu Ala Asp Lys Pro Tyr  
785 790 795 800  
Ser Ser Gly Ser Arg Ser Arg Pro Ser Ser Arg Pro Ser Ser Val Tyr  
805 810 815  
Gly Leu Asp Leu Ser Ile Lys Arg Asp Ser Ser Ser Ser Ser Leu Arg  
820 825 830  
Leu Lys Ala Gln Glu Ala Glu Ala Leu Asp Val Ser Phe Ser His Ala  
835 840 845  
Ser Ser Ser Ala Arg Thr Lys Pro Thr Ser Leu Pro Ile Ser Gln Ser  
850 855 860  
Arg Gly Arg Ile Pro Ile Val Ala Gln Asn Ser Glu Glu Glu Ser Pro  
865 870 875 880  
Leu Ser Pro Val Gly Gln Pro Met Gly Met Ala Arg Ala Ala Ala Gly  
885 890 895  
Pro Leu Pro Pro Ile Ser Ala Asp Thr Arg Asp Gln Phe Gly Ser Ser  
900 905 910  
His Ser Leu Pro Glu Val Gln Gln His Met Arg Glu Glu Ser Arg Thr  
915 920 925  
Arg Gly Tyr Asp Arg Asp Ile Ala Phe Ile Met Asp Asp Phe Gln His

930                      935                      940  
 Ala Met Ser Asp Ser Glu Gly Lys Leu Gly Leu Lys Leu Pro Cys Tyr  
 945                      950                      955                      960  
 Ser Gln Asn Ser Asn Ser Tyr Phe Ser Ala Cys Leu Ile Ser Leu Leu  
                          965                      970                      975  
 Gln Arg Cys Ile Leu Leu Phe Leu Val Cys Leu Leu His Val Tyr Phe  
                          980                      985                      990  
 Asn Phe Ile Ser Cys Lys Trp Lys Phe Tyr His Val Tyr Arg Phe Cys  
                          995                      1000                      1005  
 Ser Met Leu Phe Phe Ile  
 1010

<210> 3875

<211> 166

<212> PRT

<213> Homo sapiens

<400> 3875

Met Thr Val Val Val Pro Leu Ile Ile Gly Gln Ile Val Arg Arg Tyr  
                          1                      5                      10                      15  
 Ile Lys Asp Trp Leu Glu Arg Lys Lys Pro Pro Phe Gly Ala Ile Ser  
                          20                      25                      30  
 Ser Ser Val Leu Leu Met Ile Ile Tyr Thr Thr Phe Cys Asp Thr Phe  
                          35                      40                      45  
 Ser Asn Pro Asn Ile Asp Leu Asp Lys Phe Ser Leu Val Leu Ile Leu  
                          50                      55                      60  
 Phe Ile Ile Phe Ser Ile Gln Leu Ser Phe Met Leu Leu Thr Phe Ile  
                          65                      70                      75                      80

Phe Ser Thr Arg Asn Asn Ser Gly Phe Thr Pro Ala Asp Thr Val Ala  
                     85                    90                    95  
 Ile Ile Phe Cys Ser Thr His Lys Ser Leu Thr Leu Gly Ile Pro Met  
                     100                    105                    110  
 Leu Lys Ile Val Phe Ala Gly His Glu His Leu Ser Leu Ile Ser Val  
                     115                    120                    125  
 Pro Leu Leu Ile Tyr His Pro Ala Gln Ile Leu Leu Gly Ser Val Leu  
                     130                    135                    140  
 Val Pro Thr Ile Lys Ser Trp Met Val Ser Arg Gln Lys Gly Val Lys  
                     145                    150                    155                    160  
 Leu Thr Arg Pro Thr Val  
                     165

&lt;210&gt; 3876

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3876

Met Ser Trp Thr Phe Arg Gly Gly Ser Ser Trp Thr Cys Leu Gly Val  
           1                    5                    10                    15  
 Gly Lys Ser Val Leu Leu Ala Pro Tyr Gly Ala Ser Cys Leu Pro Leu  
                     20                    25                    30  
 Trp Leu Leu His Ser Cys Thr His Pro Thr Arg Pro Gly Leu Thr His  
                     35                    40                    45  
 Gly Glu Ser Trp Leu Thr Ala Ile Cys Leu Phe Gly Ser Ser Val Pro  
                     50                    55                    60  
 Leu Gln Thr Trp Val Phe Ser Val Gly Val Ser Lys Gly Phe Lys Leu

65	70	75	80
Asn Pro Gly Gly Leu Phe Ser Pro Asp Asp Glu Cys Cys Trp Ala Cys			
	85	90	95
Thr Ile Tyr Asp Phe Val Gly His Thr Gly Thr Trp Asn Pro Val Val			
	100	105	110
Ala Trp Tyr Pro Val Val Lys His Ser Ile Glu Ser Gly Gln Gly Thr			
	115	120	125
Leu Lys Val Ala Ser Asn Arg Gly His Val Ser Leu Leu Trp Met Thr			
	130	135	140

&lt;210&gt; 3877

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3877

Met Ala Val Ser Ser Gly Pro Pro Arg Pro Ser Gln Trp Glu Pro Arg			
1	5	10	15
Leu Pro Ala Arg Ala Asp Ser Ala His Gly Ala Cys Pro Gln Pro Val			
	20	25	30
Gly Ser Pro Ala Pro Ala Gly Val Gly Lys His Arg Leu Pro Val Leu			
	35	40	45
Thr Gln Pro Ser Ala Ser Ser Ser Cys Pro Leu Trp Ser Gly Ala Ser			
	50	55	60
Thr Ser Lys Ala Trp Ser Val Glu Thr Ser Pro Asp Val Ser Ser Gln			
	65	70	75
Glu Phe Arg Ala Ala Ala Ser Asn Ala Leu Leu Gly Ser Arg Ala Phe			
	85	90	95

Leu Gly Ala Arg Arg Arg Pro Asn Lys Ile Thr Lys His Phe Leu Glu

100

105

110

Phe Gln Lys Lys Thr Gly Glu Lys Tyr Leu Gln Val Gly Met Ile Leu

115

120

125

Ile Leu Val Asp Gly Pro Ile Arg Thr Leu Val Gly Lys Lys Arg Gln

130

135

140

His Lys Thr Val Arg

145

<210> 3878

<211> 114

<212> PRT

<213> Homo sapiens

<400> 3878

Met Cys Gly Pro Ser Gly Asp Gly Asp Pro Arg Cys Gly Leu Arg Asn

1

5

10

15

Gln Cys Val Ser Trp Thr Leu Leu Thr Ser Lys Leu Glu Gln Lys Arg

20

25

30

His Leu Cys Gly Ala Leu Thr His Pro Arg Tyr Phe Ala Thr Ser Phe

35

40

45

Asn Ile Pro Ser Leu Arg Thr Gln Thr Tyr Met Gly Asp Arg Gly Val

50

55

60

Tyr Asn Pro Ile Ser Tyr Leu Tyr Thr Lys Pro Trp Ala Thr Glu Ser

65

70

75

80

Val Lys Phe Met Val Ile Lys Pro Leu His Arg Gly Gly Pro Val Ser

85

90

95

Pro Trp Lys His His Thr Leu Leu Pro Ala Gln Glu Val Met Glu Gly



100 105 110  
Asp Gly  
  
<210> 3879  
<211> 937  
<212> PRT  
<213> Homo sapiens  
  
<400> 3879  
Met Gly Val Lys Lys Lys Lys Glu Met Gln Val Ala Ala Leu Thr Ile  
1 5 10 15  
Cys His Gln Asp Leu Glu Thr Leu Lys Ser Phe Ala Asp Val Glu Gly  
20 25 30  
Lys Asn Leu Ala Ser Leu Leu Leu His Cys Val Gln Leu Thr Asp Gly  
35 40 45  
Val Ser Gln Ile His Tyr Ile Lys Gln Ile Val Pro Leu Leu Glu Lys  
50 55 60  
Ala Asp Lys Asn Gly Met Cys Asp Pro Thr Ile Gln Ser Cys Leu Asp  
65 70 75 80  
Ile Leu Ala Gly Ile Tyr Leu Ser Leu Ser Leu Lys Asn Pro Leu Lys  
85 90 95  
Lys Val Leu Ala Ser Ser Leu Asn Ser Leu Pro Asp Phe Phe Leu Pro  
100 105 110  
Glu Ala Met His Arg Phe Thr Ser Arg Leu Gln Glu Glu Leu Asn Thr  
115 120 125  
Thr Asp Leu Tyr Ser Tyr Arg Lys Val Thr Asp Asn Ile Ser Ser Cys  
130 135 140

Met Glu Asn Phe Asn Leu Gly Arg Ala Ser Val Asn Asn Leu Leu Lys  
145 150 155 160  
Asn Val Leu His Phe Leu Gln Lys Ser Leu Ile Glu Ile Leu Glu Glu  
165 170 175  
Asn Arg Lys Cys Ala Gly Asn His Ile Ile Gln Thr Gln Leu Met Asn  
180 185 190  
Asp Leu Leu Val Gly Ile Arg Val Ser Met Met Leu Val Gln Lys Val  
195 200 205  
Gln Asp Phe Gln Gly Asn Leu Trp Lys Thr Ser Asp Ser Pro Ile Trp  
210 215 220  
Gln Asn Met Cys Gly Leu Leu Ser Ile Phe Thr Lys Val Leu Ser Asp  
225 230 235 240  
Asp Asp Leu Leu Arg Thr Val Gln Ser Thr Ser Gly Leu Ala Ile Ile  
245 250 255  
Leu Phe Ile Lys Thr Met Phe His Pro Ser Glu Lys Ile Pro His Leu  
260 265 270  
Ile Ser Ser Val Leu Leu Arg Ser Val Asp Cys Thr Ser Val Pro Glu  
275 280 285  
Trp Phe Met Ser Ser Cys Arg Ser Leu Cys Cys Gly Asp Ile Ser Gln  
290 295 300  
Ser Ala Val Leu Phe Leu Cys Gln Gly Thr Leu Ala Met Leu Asp Trp  
305 310 315 320  
Gln Asn Gly Ser Met Gly Arg Ser Gly Glu Ala Leu Leu Leu Asp Thr  
325 330 335  
Ala His Val Leu Phe Thr Leu Ser Ser Gln Ile Lys Glu Pro Thr Leu  
340 345 350  
Glu Met Phe Leu Ser Arg Ile Leu Ala Ser Trp Thr Asn Ser Ala Ile  
355 360 365  
Gln Val Leu Glu Ser Ser Ser Pro Ser Leu Thr Asp Ser Leu Asn Gly

370 375 380  
Asn Ser Ser Ile Val Gly Arg Leu Leu Glu Tyr Val Tyr Thr His Trp  
385 390 395 400  
Glu His Pro Leu Asp Ala Leu Arg His Gln Thr Lys Ile Met Phe Lys  
405 410 415  
Asn Leu Leu Gln Met His Arg Leu Thr Val Glu Gly Ala Asp Phe Val  
420 425 430  
Pro Asp Pro Phe Phe Val Glu Leu Thr Glu Ser Leu Leu Arg Leu Glu  
435 440 445  
Trp His Ile Lys Gly Lys Tyr Thr Cys Leu Gly Cys Leu Val Glu Cys  
450 455 460  
Ile Gly Val Glu His Ile Leu Ala Ile Asp Lys Thr Ile Pro Ser Gln  
465 470 475 480  
Ile Leu Glu Val Met Gly Asp Gln Ser Leu Val Pro Tyr Ala Ser Asp  
485 490 495  
Leu Leu Glu Thr Met Phe Arg Asn His Lys Ser His Leu Lys Ser Gln  
500 505 510  
Thr Ala Glu Ser Ser Trp Ile Asp Gln Trp His Glu Thr Trp Val Ser  
515 520 525  
Pro Leu Leu Phe Ile Leu Cys Glu Gly Asn Leu Asp Gln Lys Ser Tyr  
530 535 540  
Val Ile Asp Tyr Tyr Leu Pro Lys Leu Leu Ser Tyr Ser Pro Glu Ser  
545 550 555 560  
Leu Gln Tyr Met Val Lys Ile Leu Gln Thr Ser Ile Asp Ala Lys Thr  
565 570 575  
Gly Gln Glu Gln Ser Phe Pro Ser Leu Gly Ser Cys Asn Ser Arg Gly  
580 585 590  
Ala Leu Gly Ala Leu Met Ala Cys Leu Arg Ile Ala Arg Ala His Gly  
595 600 605

His Leu Gln Ser Ala Thr Asp Thr Trp Glu Asn Leu Val Ser Asp Ala  
610 615 620  
Arg Ile Lys Gln Gly Leu Ile His Gln His Cys Gln Val Arg Ile Asp  
625 630 635 640  
Thr Leu Gly Leu Leu Cys Glu Ser Asn Arg Ser Thr Glu Ile Val Ser  
645 650 655  
Met Glu Glu Met Gln Trp Ile Gln Phe Phe Ile Thr Tyr Asn Leu Asn  
660 665 670  
Ser Gln Ser Pro Gly Val Arg Gln Gln Ile Cys Ser Leu Leu Lys Lys  
675 680 685  
Leu Phe Cys Arg Ile Gln Glu Ser Ser Gln Val Leu Tyr Lys Leu Glu  
690 695 700  
Gln Ser Lys Ser Lys Arg Glu Pro Glu Asn Glu Leu Thr Lys Gln His  
705 710 715 720  
Pro Ser Val Ser Leu Gln Gln Tyr Lys Asn Phe Met Ser Ser Ile Cys  
725 730 735  
Asn Ser Leu Phe Glu Ala Leu Phe Pro Gly Ser Ser Tyr Ser Thr Arg  
740 745 750  
Phe Ser Ala Leu Thr Ile Leu Gly Ser Ile Ala Glu Val Phe His Val  
755 760 765  
Pro Glu Gly Arg Ile Tyr Thr Val Tyr Gln Leu Ser His Asp Ile Asp  
770 775 780  
Val Gly Arg Phe Gln Thr Leu Met Glu Cys Phe Thr Ser Thr Phe Glu  
785 790 795 800  
Asp Val Lys Ile Leu Ala Phe Asp Leu Leu Met Lys Leu Ser Lys Thr  
805 810 815  
Ala Val His Phe Gln Asp Ser Gly Lys Leu Gln Gly Leu Phe Gln Ala  
820 825 830  
Ala Leu Glu Leu Ser Thr Ser Thr Lys Pro Tyr Asp Cys Val Thr Ala

835                      840                      845  
 Ser Tyr Leu Leu Asn Phe Leu Ile Trp Gln Asp Ala Leu Pro Ser Ser  
 850                      855                      860  
 Leu Ser Ala Tyr Leu Thr Gln Gln Val Ala Cys Asp Asn Gly Asp Arg  
 865                      870                      875                      880  
 Pro Ala Ala Val Val Glu Arg Asn Thr Leu Met Val Ile Lys Cys Leu  
 885                      890                      895  
 Met Glu Asn Leu Glu Glu Glu Val Ser Gln Ala Glu Asn Ser Leu Leu  
 900                      905                      910  
 Gln Ala Ala Ala Ala Phe Pro Met Tyr Gly Arg Val His Cys Ile Thr  
 915                      920                      925  
 Gly Ala Leu Gln Lys Leu Ser Leu Lys  
 930                      935

<210> 3880

<211> 1013

<212> PRT

<213> Homo sapiens

<400> 3880

Met Leu Leu Gln Leu Leu Lys Glu Ser Leu Trp Lys Ile Ser Asp Val  
 1                      5                      10                      15  
 Ala Trp Thr Ile Gln Leu Thr Gln Asp Phe Lys Gln Gln Met Gly Ser  
 20                      25                      30  
 Tyr Ser Asn Asn Ser Thr Glu Lys Lys Phe Leu Trp Lys Ala Leu Gly  
 35                      40                      45  
 Thr Thr Leu Ala Cys Cys Gln Asp Ser Asp Phe Val Asn Ser Gln Ile  
 50                      55                      60

Lys Glu Phe Leu Thr Ala Pro Asn Gln Leu Gly Asp Gln Arg Gln Gly  
65 70 75 80  
Ile Thr Ser Ile Leu Gly Tyr Cys Ala Glu Asn His Leu Asp Ile Val  
85 90 95  
Leu Lys Val Leu Lys Thr Phe Gln Asn Gln Glu Lys Phe Phe Met Asn  
100 105 110  
Arg Cys Lys Ser Leu Phe Ser Gly Lys Lys Ser Leu Thr Lys Thr Asp  
115 120 125  
Val Met Val Ile Tyr Gly Ala Val Ala Leu His Ala Pro Lys Lys Gln  
130 135 140  
Leu Leu Ser Arg Leu Asn Gln Asp Ile Ile Ser Gln Val Leu Ser Leu  
145 150 155 160  
His Gly Gln Cys Ser Gln Val Leu Gly Met Ser Val Met Asn Lys Asp  
165 170 175  
Met Asp Leu Gln Met Ser Phe Thr Arg Ser Ile Thr Glu Ile Gly Ile  
180 185 190  
Ala Val Gln Asp Ala Glu Asp Gln Gly Phe Gln Phe Ser Tyr Lys Glu  
195 200 205  
Met Leu Ile Gly Tyr Met Leu Asp Phe Ile Arg Asp Glu Pro Leu Asp  
210 215 220  
Ser Leu Ala Ser Pro Ile Arg Trp Lys Ala Leu Ile Ala Ile Arg Tyr  
225 230 235 240  
Leu Ser Lys Leu Lys Pro Gln Leu Ser Leu Gln Asp His Leu Asn Ile  
245 250 255  
Leu Glu Glu Asn Ile Arg Arg Leu Leu Pro Leu Pro Pro Leu Glu Asn  
260 265 270  
Leu Lys Ser Glu Gly Gln Thr Asp Lys Asp Lys Glu His Ile Gln Phe  
275 280 285  
Leu Tyr Glu Arg Ser Met Asp Ala Leu Gly Lys Leu Leu Lys Thr Met

290 295 300  
Met Trp Asp Asn Val Asn Ala Glu Asp Cys Gln Glu Met Phe Asn Leu  
305 310 315 320  
Leu Gln Met Trp Leu Val Ser Gln Lys Glu Trp Glu Arg Glu Arg Ala  
325 330 335  
Phe Gln Ile Thr Ala Lys Val Leu Thr Asn Asp Ile Glu Ala Pro Glu  
340 345 350  
Asn Phe Lys Ile Gly Ser Leu Leu Gly Leu Leu Ala Pro His Ser Cys  
355 360 365  
Asp Thr Leu Pro Thr Ile Arg Gln Ala Ala Ala Ser Ser Thr Ile Gly  
370 375 380  
Leu Phe Tyr Ile Lys Gly Ile His Leu Glu Val Glu Arg Leu Gln Gly  
385 390 395 400  
Leu Gln Glu Gly Leu Glu Ser Asp Asp Val Gln Val Gln Ile Lys Ile  
405 410 415  
Ser Ser Lys Ile Ala Lys Ile Val Ser Lys Phe Ile Pro Asn Glu Glu  
420 425 430  
Ile Leu Met Phe Leu Glu Glu Met Leu Asp Gly Leu Glu Ser Leu Asn  
435 440 445  
Pro Thr Cys Thr Lys Ala Cys Gly Ile Trp Met Ile Thr Val Leu Lys  
450 455 460  
Gln Gln Gly Ala Ala Leu Glu Asp Gln Leu Leu Glu Ile Leu Gly Thr  
465 470 475 480  
Ile Tyr His His Met Pro Val Leu Arg Gln Lys Glu Glu Ser Phe Gln  
485 490 495  
Phe Ile Leu Glu Ala Ile Ser Gln Ile Ala Ser Phe His Met Asp Thr  
500 505 510  
Val Val Val Asn Leu Leu Gln Lys Pro Leu Pro Phe Asp Arg Asp Thr  
515 520 525

Lys Thr Leu Trp Lys Ala Leu Ala Glu Lys Pro Ala Ser Ser Gly Lys  
530 535 540  
Leu Leu Gln Ala Leu Ile Asp Lys Leu Glu Thr Glu Leu Glu Asp Asp  
545 550 555 560  
Ile Ala Arg Val Glu Ala Ile Ser Val Ala Cys Ala Met Tyr Glu Val  
565 570 575  
Ile Ser Met Gly Thr Ser Val Thr Gly Leu Tyr Pro Glu Leu Phe Thr  
580 585 590  
Leu Leu Leu Lys Leu Val Ser Cys Thr Leu Gly Gln Lys Met Pro Thr  
595 600 605  
Cys Pro Trp Ser His Arg Arg His Val Met Gln Gln Gly Glu Gln Gln  
610 615 620  
Gln Ile Pro Asp Pro Cys Arg Leu Ser Thr Ala Thr Leu Lys Cys Leu  
625 630 635 640  
Gln Ala Gln Ala Met Arg Glu Gly Leu Ala Lys Glu Ser Asp Glu Gly  
645 650 655  
Asp Asn Leu Trp Thr Leu Leu Ser Ser Pro Ser Thr His His Ile Gly  
660 665 670  
Val Cys Ser Leu Ala Arg Ser Met Ala Val Trp Gln His Gly Val Ile  
675 680 685  
Leu Asp Ile Met Glu Gln Leu Leu Ser Ser Leu Thr Ser Ser Ser Glu  
690 695 700  
Asn Tyr Arg Ile Thr Gly Ala Ala Phe Phe Ser Glu Leu Met Lys Glu  
705 710 715 720  
Pro Ile Leu Trp Lys His Gly Asn Leu Arg Asn Val Leu Ile Leu Met  
725 730 735  
Asp Gln Ser Ala Trp Asp Ser Asn Ala Thr Leu Arg Gln Met Ala Ile  
740 745 750  
Arg Gly Leu Gly Asn Thr Ala Ser Gly Ala Pro His Lys Val Lys Lys



出証特 2 0 0 4 - 3 0 5 9 6 6 0

Arg Ala Ala Glu Ala Ala Leu Gln Thr Leu Leu Arg Arg Cys Lys Glu

995

1000

1005

Thr Ser Ile Pro Leu

1010

<210> 3881

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3881

Met Ile Thr Glu Ile Arg Arg Arg Gly Ser Lys Asp Pro Leu Val Lys

1

5

10

15

Ala Leu Gln Leu Leu Asp Ser Pro Cys Glu Pro Ala Asp Gly Gly Leu

20

25

30

Lys Ser Glu Thr Leu Ala Lys Arg Arg Ser Ser Lys Asp Leu Leu Gly

35

40

45

Lys Pro Pro Gln Leu Tyr Asp Thr Pro Tyr Glu Pro Ala Glu Gly Gly

50

55

60

Pro Arg Ala Glu Gly Lys Ala Arg Pro Pro Asp Ser Arg Leu Pro Glu

65

70

75

80

Asn Asp Glu Arg Pro Ala Ala Glu Tyr Glu Gln Pro Trp Glu Trp Lys

85

90

95

Lys Glu Gln Ile Val Arg Ala Leu Ser Val

100

105

<210> 3882

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3882

Met Leu Thr Thr Ser Gly Gly Gly Thr Gly Pro Leu Glu Gly Leu Gln

1 5 10 15

Glu Glu Ala Ser Ile Ser Leu Ile Thr Ala Leu Thr Val Ser Leu Lys

20 25 30

Thr Thr Arg Pro Cys Cys Leu Phe Ile Gly Arg Val Ser Pro Ala Phe

35 40 45

Asp Gln Leu Leu Trp Asn Ile Ser Thr Leu Pro Cys Arg Leu Pro Cys

50 55 60

Asp Ser Trp Lys Ser Arg Ser Phe Val Ala Trp Arg Gly Cys Lys Pro

65 70 75 80

Arg Ala Ala Ala Pro Asp Ala Phe Ser Glu Gln Ile Pro Gln Arg Gly

85 90 95

Cys Leu Thr Ser Glu Met Asn Phe Ser Gln Cys Leu Arg Arg Gly Arg

100 105 110

Cys Arg Asn Leu Thr Pro Leu Ser Asn Pro Glu Gln Ser Thr Gln Pro

115 120 125

Leu

&lt;210&gt; 3883

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3883

Met His Thr Lys Thr Asp Gln Ala Ala Thr Pro Asn Arg Arg Gln Met  
 1 5 10 15  
 Thr Ile Leu Leu Leu Leu Thr Ile Arg Ser Ser Thr Leu Leu His Phe  
 20 25 30  
 Gly Lys Trp Asn Lys Cys Ser Gly Glu Asp Arg Glu His Arg Thr Tyr  
 35 40 45  
 Leu Pro Gly Gly Asp Ile Lys Glu Gln Pro Gln Asp Leu Gln Asn Lys  
 50 55 60  
 Val Val Pro Met Asn Tyr Leu Cys Leu Gln Pro His Leu Ala Pro Ser  
 65 70 75 80  
 Ala Lys Pro Ala Ser Asp Lys Gln Leu Phe Pro Arg Gln Pro Pro Leu  
 85 90 95  
 Pro Ser Ile Leu Gly Thr His Pro Glu Asn Ser Pro Thr Cys Ser Thr  
 100 105 110  
 Thr Thr Lys Leu Phe  
 115

&lt;210&gt; 3884

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3884

Met Gln Thr Ser Tyr Met Tyr Asn Leu Ile Ser Phe Asp Lys Ile Ile  
 1 5 10 15  
 His Leu Cys Asn His His Leu Ser Gln Asp Leu Glu His Phe His His

	20		25		30
Pro	Glu	Ser	Pro	Leu	Ile
Ile	Ser	Phe	Gln	Gln	Ile
Leu	Thr	Ser	Gln		
	35		40		45
Arg	Gln	Pro	Val	Thr	Ile
Asp	Tyr	Phe	Thr	Cys	Ser
Tyr	Thr	Ser	Tyr	Thr	Ser
	50		55		60
Val	Leu	Phe	Cys	Phe	Leu
Phe	Lys	Leu	Asn	Leu	Thr
Phe	Ser	Ile	Leu		
	65		70		75
Ile	Tyr	Phe	Ala	Val	Cys
Ile	Ser	Ser	Ser	Leu	Lys
Lys	Phe	Leu	Gly		
	85		90		95
Cys	Phe	Pro	Leu	Tyr	Glu
Tyr	Pro	Thr	Ile	Asp	Ile
	100		105		

&lt;210&gt; 3885

&lt;211&gt; 499

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3885

Met	Phe	Asp	Met	Gly	Phe	Glu	Pro	Gln	Val	Met	Arg	Ile	Val	Asp	Asn
1			5					10					15		
Val	Arg	Pro	Asp	Arg	Gln	Thr	Val	Met	Phe	Ser	Ala	Thr	Phe	Pro	Arg
	20						25						30		
Ala	Met	Glu	Ala	Leu	Ala	Arg	Arg	Ile	Leu	Ser	Lys	Pro	Ile	Glu	Val
	35						40					45			
Gln	Val	Gly	Gly	Arg	Ser	Val	Val	Cys	Ser	Asp	Val	Glu	Gln	Gln	Val
	50						55					60			
Ile	Val	Ile	Glu	Glu	Glu	Lys	Lys	Phe	Leu	Lys	Leu	Leu	Glu	Leu	Leu
	65						70					75			80

Gly His Tyr Gln Glu Ser Gly Ser Val Ile Ile Phe Val Asp Lys Gln  
85 90 95  
Glu His Ala Asp Gly Leu Leu Lys Asp Leu Met Arg Ala Ser Tyr Pro  
100 105 110  
Cys Met Ser Leu His Gly Gly Ile Asp Gln Tyr Asp Arg Asp Ser Ile  
115 120 125  
Ile Asn Asp Phe Lys Asn Gly Thr Cys Lys Leu Leu Val Ala Thr Ser  
130 135 140  
Val Ala Ala Arg Gly Leu Asp Val Lys His Leu Ile Leu Val Val Asn  
145 150 155 160  
Tyr Ser Cys Pro Asn His Tyr Glu Asp Tyr Val His Arg Ala Gly Arg  
165 170 175  
Thr Gly Arg Ala Gly Asn Lys Gly Tyr Ala Tyr Thr Phe Ile Thr Glu  
180 185 190  
Asp Gln Ala Arg Tyr Ala Gly Asp Ile Ile Lys Ala Leu Glu Leu Ser  
195 200 205  
Gly Thr Ala Val Pro Pro Asp Leu Glu Lys Leu Trp Ser Asp Phe Lys  
210 215 220  
Asp Gln Gln Lys Ala Glu Gly Lys Ile Ile Lys Lys Ser Ser Gly Phe  
225 230 235 240  
Ser Gly Lys Gly Phe Lys Phe Asp Glu Thr Glu Gln Ala Leu Ala Asn  
245 250 255  
Glu Arg Lys Lys Leu Gln Lys Ala Ala Leu Gly Leu Gln Asp Ser Asp  
260 265 270  
Asp Glu Asp Ala Ala Val Asp Ile Asp Glu Gln Ile Glu Ser Met Phe  
275 280 285  
Asn Ser Lys Lys Arg Val Lys Asp Met Ala Ala Pro Gly Thr Ser Ser  
290 295 300  
Val Pro Ala Pro Thr Ala Gly Asn Ala Glu Lys Leu Glu Ile Ala Lys

305	310	315	320
Arg Leu Ala Leu Arg	Ile Asn Ala Gln Lys	Asn Leu Gly Ile Glu Ser	
325	330	335	
Gln Val Asp Val Met	Gln Gln Ala Thr Asn Ala	Ile Leu Arg Gly Gly	
340	345	350	
Thr Ile Leu Ala Pro	Thr Val Ser Ala Lys	Thr Ile Ala Glu Gln Leu	
355	360	365	
Ala Glu Lys Ile Asn	Ala Lys Leu Asn Tyr	Val Pro Leu Glu Lys Gln	
370	375	380	
Glu Glu Glu Arg Gln	Asp Gly Gly Gln Asn	Glu Ser Phe Lys Arg Tyr	
385	390	395	400
Glu Glu Glu Leu Glu	Ile Asn Asp Phe Pro	Gln Thr Ala Arg Trp Lys	
405	410	415	
Val Thr Ser Lys Glu	Ala Leu Gln Arg Ile	Ser Glu Tyr Ser Glu Ala	
420	425	430	
Ala Ile Thr Ile Arg	Gly Thr Tyr Phe Pro	Pro Gly Lys Glu Pro Lys	
435	440	445	
Glu Gly Glu Arg Lys	Ile Tyr Leu Ala Ile	Glu Ser Ala Asn Glu Leu	
450	455	460	
Ala Val Gln Lys Ala	Lys Ala Glu Ile Thr	Arg Leu Ile Lys Glu Glu	
465	470	475	480
Leu Ile Arg Leu Gln	Asn Ser Tyr Gln Pro	Thr Asn Lys Gly Arg Tyr	
485	490	495	
Lys Val Leu			

&lt;210&gt; 3886

&lt;211&gt; 671

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3886

Met	Asn	Glu	Tyr	Leu	Ser	Ser	Phe	Lys	Val	Ala	Gln	Tyr	Val	Val	Arg
1				5					10					15	
Glu	Glu	Asp	Gly	Val	Glu	Glu	Val	Glu	Arg	Glu	Ile	Ile	Lys	Gln	Glu
			20					25					30		
Glu	Asn	Val	Asp	Pro	Asp	Tyr	Trp	Glu	Lys	Leu	Leu	Arg	His	His	Tyr
		35					40					45			
Glu	Gln	Gln	Gln	Glu	Asp	Leu	Ala	Arg	Asn	Leu	Gly	Lys	Gly	Lys	Arg
	50					55					60				
Ile	Arg	Lys	Gln	Val	Asn	Tyr	Asn	Asp	Ala	Ser	Gln	Glu	Asp	Gln	Glu
65				70					75					80	
Trp	Gln	Asp	Glu	Leu	Ser	Asp	Asn	Gln	Ser	Glu	Tyr	Ser	Ile	Gly	Ser
			85					90						95	
Glu	Asp	Glu	Asp	Glu	Asp	Phe	Glu	Glu	Arg	Pro	Glu	Gly	Gln	Ser	Gly
		100						105					110		
Arg	Arg	Gln	Ser	Arg	Arg	Gln	Leu	Lys	Ser	Asp	Arg	Asp	Lys	Pro	Leu
		115					120						125		
Pro	Pro	Leu	Leu	Ala	Arg	Val	Gly	Gly	Asn	Ile	Glu	Val	Leu	Gly	Phe
	130					135					140				
Asn	Ala	Arg	Gln	Arg	Lys	Ala	Phe	Leu	Asn	Ala	Ile	Met	Arg	Trp	Gly
145					150					155				160	
Met	Pro	Pro	Gln	Asp	Ala	Phe	Asn	Ser	His	Trp	Leu	Val	Arg	Asp	Leu
			165						170					175	
Arg	Gly	Lys	Ser	Glu	Lys	Glu	Phe	Arg	Ala	Tyr	Val	Ser	Leu	Phe	Met
		180						185					190		
Arg	His	Leu	Cys	Glu	Pro	Gly	Ala	Asp	Gly	Ala	Glu	Thr	Phe	Ala	Asp



195	200	205
Gly Val Pro Arg Glu Gly Leu Ser Arg Gln His Val Leu Thr Arg Ile		
210	215	220
Gly Val Met Ser Leu Val Arg Lys Lys Val Gln Glu Phe Glu His Val		
225	230	235
Asn Gly Lys Tyr Ser Thr Pro Asp Leu Ile Pro Glu Gly Pro Glu Gly		
245	250	255
Lys Lys Pro Gly Glu Val Ile Ser Ser Asp Pro Asn Thr Pro Val Pro		
260	265	270
Ala Ser Pro Ala His Leu Leu Pro Ala Pro Leu Gly Leu Pro Asp Lys		
275	280	285
Met Glu Ala Gln Leu Gly Tyr Met Asp Glu Lys Asp Pro Gly Ala Gln		
290	295	300
Lys Pro Arg Gln Pro Leu Glu Val Gln Ala Leu Pro Ala Ala Leu Asp		
305	310	315
Arg Val Glu Ser Glu Asp Lys His Glu Ser Pro Ala Ser Lys Glu Arg		
325	330	335
Ala Arg Glu Glu Arg Pro Glu Glu Thr Glu Lys Ala Pro Pro Ser Pro		
340	345	350
Glu Gln Leu Pro Arg Glu Glu Val Leu Pro Glu Lys Glu Lys Ile Leu		
355	360	365
Asp Lys Leu Glu Leu Ser Leu Ile His Ser Arg Gly Asp Ser Ser Glu		
370	375	380
Leu Arg Pro Asp Asp Thr Lys Ala Glu Glu Lys Glu Pro Ile Glu Thr		
385	390	395
Gln Gln Asn Gly Asp Lys Glu Glu Asp Asp Glu Gly Lys Lys Glu Asp		
405	410	415
Lys Lys Gly Lys Phe Lys Phe Met Phe Asn Ile Ala Asp Gly Gly Phe		
420	425	430

Thr Glu Leu His Thr Leu Trp Gln Asn Glu Glu Arg Ala Ala Val Ser  
435 440 445  
Ser Gly Lys Ile Tyr Asp Ile Trp His Arg Arg His Asp Tyr Trp Leu  
450 455 460  
Leu Ala Gly Ile Val Thr His Gly Tyr Ala Arg Trp Gln Asp Ile Gln  
465 470 475 480  
Asn Asp Pro Arg Tyr Met Ile Leu Asn Glu Pro Phe Lys Ser Glu Val  
485 490 495  
His Lys Gly Asn Tyr Leu Glu Met Lys Asn Lys Phe Leu Ala Arg Arg  
500 505 510  
Phe Lys Leu Leu Glu Gln Ala Leu Val Ile Glu Glu Gln Leu Arg Arg  
515 520 525  
Ala Ala Tyr Leu Asn Met Thr Gln Asp Pro Asn His Pro Ala Met Ala  
530 535 540  
Leu Asn Ala Arg Leu Ala Glu Val Glu Cys Leu Ala Glu Ser His Gln  
545 550 555 560  
His Leu Ser Lys Glu Ser Leu Ala Gly Asn Lys Pro Ala Asn Ala Val  
565 570 575  
Leu His Lys Val Leu Asn Gln Leu Glu Glu Leu Leu Ser Asp Met Lys  
580 585 590  
Ala Asp Val Thr Arg Leu Pro Ser Met Leu Ser Arg Ile Pro Pro Val  
595 600 605  
Ala Ala Arg Leu Gln Met Ser Glu Arg Ser Ile Leu Ser Arg Leu Thr  
610 615 620  
Asn Arg Ala Gly Asp Pro Thr Ile Gln Gln Ile Ser Ser Arg Pro Arg  
625 630 635 640  
Asp Phe Pro Val Leu Gln Arg Ser Phe Pro Ala Glu Pro Arg Leu Pro  
645 650 655  
Gly His Leu Pro Asp Pro His Gly Arg Glu Lys Leu Pro Pro Phe

660

665

670

&lt;210&gt; 3887

&lt;211&gt; 794

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3887

Met Gly Arg Lys Leu Asp Leu Ser Gly Leu Thr Asp Asp Glu Thr Glu

1

5

10

15

His Val Leu Gln Val Val Gln Arg Asp Phe Asn Leu Arg Lys Lys Glu

20

25

30

Glu Glu Arg Leu Ser Glu Leu Lys Gln Lys Leu Asp Glu Glu Gly Ser

35

40

45

Lys Cys Ser Ile Leu Ser Lys His Gln Gln Phe Val Glu His Cys Cys

50

55

60

Met Arg Cys Cys Ser Pro Phe Thr Phe Leu Val Asn Thr Lys Arg Gln

65

70

75

80

Cys Gly Asp Cys Lys Phe Asn Val Cys Lys Ser Cys Cys Ser Tyr Gln

85

90

95

Lys His Glu Lys Ala Trp Val Cys Cys Val Cys Gln Gln Ala Arg Leu

100

105

110

Leu Arg Ala Gln Ser Leu Glu Trp Phe Tyr Asn Asn Val Lys Ser Arg

115

120

125

Phe Lys Arg Phe Gly Ser Ala Lys Val Leu Lys Asn Leu Tyr Arg Lys

130

135

140

His Arg Leu Glu Ser Gly Ala Cys Phe Asp Ile Leu Gly Gly Ser Leu

145

150

155

160

Phe Glu Ser Asn Leu Glu Asn Glu Gly Ser Ile Ser Gly Ser Asp Ser  
165 170 175  
Thr Phe Tyr Arg Gln Ser Glu Gly His Ser Val Met Asp Thr Leu Ala  
180 185 190  
Val Ala Leu Arg Val Ala Glu Glu Ala Ile Glu Glu Ala Ile Ser Lys  
195 200 205  
Ala Glu Ala Tyr Gly Asp Ser Leu Asp Lys Gln Asn Glu Ala Ser Tyr  
210 215 220  
Leu Arg Asp His Lys Glu Glu Leu Thr Glu Glu Leu Ala Thr Thr Ile  
225 230 235 240  
Leu Gln Lys Ile Ile Arg Lys Gln Lys Ser Lys Ser Glu Gln Gln Val  
245 250 255  
Glu Glu Glu Pro Gly Trp Pro His Pro Gln Ser Cys Ser Thr Lys Val  
260 265 270  
Ala Asp Glu Gly Thr Ser Ala Ser Pro Gly Gly Tyr Arg Ala Pro Ala  
275 280 285  
Ala Leu Trp Arg Ser Gln Ser Ala Phe Ser Ile Thr Gly Glu Glu Ala  
290 295 300  
Leu Lys Thr Pro Pro Val Glu Ala Pro Ser Arg Gln Pro Arg Asp Gln  
305 310 315 320  
Gly Gln His Pro Arg Ala Glu Ser Ala Leu Pro Ser Trp Lys Ser Val  
325 330 335  
Asp Arg Leu Asp Glu Thr Asn Leu Ala Pro Val Leu Gln Ser Pro Asp  
340 345 350  
Gly Asn Trp Val Ala Leu Lys Asp Gly Ala Pro Pro Pro Thr Arg Leu  
355 360 365  
Leu Ala Lys Pro Lys Ser Gly Thr Phe Gln Ala Leu Glu Val Ala Ser  
370 375 380  
Ser Val Ala Ser Ala Tyr Asp Glu Met Gly Ser Asp Ser Glu Glu Asp

385	390	395	400
Phe Asp Trp Ser Glu Ala Leu Ser Lys Leu Cys Pro Arg Ser Arg Ala			
405	410	415	
Leu Pro Arg Asn Pro Gln Pro Gln Pro Thr Gln Ala Gln Ser Ser Asp			
420	425	430	
Gln Gly Pro Ile Ala Ala Ser Pro Ser Ser Ala Leu Ser Pro Asn Pro			
435	440	445	
Glu Ala Met Cys Ser Asp Ser Glu Thr Ser Ser Ala Gly Ser Ser Arg			
450	455	460	
Glu Val Gly His Gln Ala Arg Leu Ser Trp Leu Gln Arg Lys Ala Pro			
465	470	475	480
Arg Asn Pro Ala Ala Glu Lys Met Arg Leu His Gly Glu Leu Asp Val			
485	490	495	
Asn Phe Asn Pro Gln Leu Ala Ser Arg Glu Thr Ser Asp Ser Ser Glu			
500	505	510	
Pro Glu Glu Ala Pro His Thr Thr Asp Arg Arg Ala Arg Arg Trp Arg			
515	520	525	
Gly Ala Arg Leu Gly Ser Glu Gly Pro Ser Lys Glu Pro Ser Ser Pro			
530	535	540	
Ser Ala Gln Leu Arg Asp Leu Asp Thr His Gln Val Ser Asp Asp Leu			
545	550	555	560
Ser Glu Thr Asp Ile Ser Asn Glu Ala Arg Asp Pro Gln Thr Leu Thr			
565	570	575	
Asp Thr Thr Glu Glu Lys Arg Arg Asn Arg Leu Tyr Glu Leu Ala Met			
580	585	590	
Lys Met Ser Glu Lys Glu Thr Ser Ser Gly Glu Asp Gln Glu Ser Glu			
595	600	605	
Pro Lys Thr Glu Ser Glu Asn Gln Lys Glu Ser Leu Ser Ser Glu Asp			
610	615	620	

Asn Ser Gln Ser Val Gln Glu Glu Leu Lys Lys Val Tyr Leu Ala Ala  
625                      630                      635                      640  
Gly Thr Val Tyr Gly Leu Glu Thr Gln Leu Thr Glu Leu Glu Asp Ala  
                         645                      650                      655  
Ala Arg Cys Ile His Ser Gly Thr Asp Glu Thr His Leu Ala Asp Leu  
                         660                      665                      670  
Glu Asp Gln Val Ala Thr Ala Ala Ala Gln Val His His Ala Glu Leu  
                         675                      680                      685  
Gln Ile Ser Asp Ile Glu Ser Arg Ile Ser Ala Leu Thr Ile Ala Gly  
                         690                      695                      700  
Leu Asn Ile Ala Pro Cys Val Arg Phe Thr Arg Arg Arg Asp Gln Lys  
705                      710                      715                      720  
Gln Arg Thr Gln Val Gln Thr Ile Asp Thr Ser Arg Gln Gln Arg Arg  
                         725                      730                      735  
Lys Leu Pro Ala Pro Pro Val Lys Ala Glu Lys Ile Glu Thr Ser Ser  
                         740                      745                      750  
Val Thr Thr Ile Lys Thr Phe Asn His Asn Phe Ile Leu Gln Gly Ser  
                         755                      760                      765  
Ser Thr Asn Arg Thr Lys Glu Arg Lys Gly Thr Thr Lys Asp Leu Met  
                         770                      775                      780  
Glu Pro Ala Leu Glu Ser Ala Val Met Tyr  
785                      790

&lt;210&gt; 3888

&lt;211&gt; 1233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3888

Met	Gly	Thr	Arg	Ala	Phe	Ser	His	Asp	Ser	Ile	Phe	Ile	Pro	Asp	Gly
1				5					10				15		
Gly	Ala	Glu	Ser	Glu	Gln	Thr	Val	Gln	Ala	Met	Ser	Gln	Asp	Asn	Ile
			20					25					30		
Leu	Gly	Lys	Val	Lys	Thr	Leu	Gln	Gln	Gln	Leu	Gly	Lys	Asn	Ile	Lys
		35					40					45			
Phe	Gly	Gln	Arg	Ser	Pro	Asn	Ala	Ile	Pro	Met	Asn	Lys	Ala	Asn	Ser
	50					55					60				
Gly	Glu	Ala	Ser	Leu	Glu	Glu	Asp	Leu	Phe	Leu	Thr	Ser	Pro	Met	Glu
65					70					75				80	
Ile	Val	Thr	Gln	Gln	Asp	Ile	Val	Leu	Ser	Asp	Ala	Glu	Asn	Lys	Ser
			85					90					95		
Ser	Asp	Thr	Pro	Ser	Ser	Leu	Ser	Pro	Leu	Asn	Leu	Pro	Gly	Ala	Gly
			100					105					110		
Ser	Glu	Met	Glu	Glu	Lys	Val	Ala	Pro	Val	Lys	Pro	Ser	Arg	Pro	Lys
		115					120					125			
Arg	His	Phe	Ser	Ser	Ala	Gly	Thr	Ile	Glu	Ser	Val	Asn	Leu	Asp	Ala
	130					135					140				
Ile	Pro	Leu	Ala	Ile	Ala	Arg	Leu	Asp	Asn	Ser	Ala	Ala	Lys	His	Lys
145					150					155				160	
Leu	Ala	Val	Lys	Pro	Lys	Lys	Gln	Arg	Val	Ser	Lys	Lys	His	Arg	Arg
			165					170					175		
Leu	Ala	Gln	Asp	Pro	Gln	His	Glu	Gln	Gly	Gly	Leu	Glu	Ser	Arg	Pro
			180					185					190		
Cys	Leu	Asp	Gln	Asn	Gly	His	Pro	Gly	Glu	Asp	Lys	Pro	Thr	Trp	His
		195					200					205			
Glu	Glu	Glu	Pro	Asn	Pro	Leu	Asp	Ser	Glu	Glu	Glu	Arg	Arg	Arg	Gln
	210					215						220			

Glu Asp Tyr Trp Arg Glu Leu Glu Ala Lys Cys Lys Arg Gln Lys Ala  
225 230 235 240  
Glu Ala Ala Glu Lys Arg Arg Leu Glu Glu Gln Arg Leu Gln Ala Leu  
245 250 255  
Glu Arg Arg Leu Trp Glu Glu Asn Arg Arg Gln Glu Leu Leu Glu Glu  
260 265 270  
Glu Gly Glu Gly Gln Glu Pro Pro Leu Glu Ala Glu Arg Ala Pro Arg  
275 280 285  
Glu Glu Gln Gln Arg Ser Leu Glu Ala Pro Arg Trp Glu Asp Ala Glu  
290 295 300  
Arg Arg Glu Arg Glu Glu Arg Glu Arg Leu Glu Ala Glu Glu Glu Arg  
305 310 315 320  
Arg Arg Leu Gln Ala Gln Ala Gln Ala Glu Glu Arg Arg Arg Leu Glu  
325 330 335  
Glu Asp Ala Arg Leu Glu Glu Arg Arg Arg Gln Glu Glu Glu Glu Gly  
340 345 350  
Arg Cys Ala Glu Glu Leu Lys Arg Gln Glu Glu Glu Glu Ala Glu Gly  
355 360 365  
Trp Glu Glu Leu Glu Gln Gln Glu Ala Glu Val Gln Gly Pro Pro Glu  
370 375 380  
Ala Leu Glu Glu Thr Gly Glu Gly Arg Arg Gly Ala Glu Glu Glu Asp  
385 390 395 400  
Leu Gly Glu Glu Glu Glu Glu Gly Gln Ala His Leu Glu Asp Trp Arg  
405 410 415  
Gly Gln Leu Ser Glu Leu Leu Asn Asp Phe Glu Glu Arg Leu Glu Asp  
420 425 430  
Gln Glu Arg Leu Lys Pro Glu Gly Gln Arg Glu His Ser Glu Glu Pro  
435 440 445  
Gly Ile Cys Glu Glu Gln Asn Pro Glu Ala Glu Arg Arg Arg Glu Gln



450 455 460  
Gln Gly Arg Ser Gly Asp Phe Gln Gly Ala Asp Arg Pro Gly Pro Glu  
465 470 475 480  
Glu Lys Arg Glu Glu Gly Asp Thr Glu Pro Leu Leu Lys Gln Glu Gly  
485 490 495  
Pro Val Glu Ala Ala Gln Pro Pro Val Glu Arg Lys Glu Ala Ala Ala  
500 505 510  
Leu Glu Gln Gly Arg Lys Val Glu Glu Leu Arg Trp Gln Glu Val Asp  
515 520 525  
Glu Arg Gln Thr Met Pro Arg Pro Tyr Thr Phe Gln Val Ser Ser Gly  
530 535 540  
Gly Lys Gln Ile Leu Phe Pro Lys Val Asn Leu Ser Pro Val Thr Pro  
545 550 555 560  
Ala Lys Asp Thr Gly Leu Thr Ala Ala Pro Gln Glu Pro Lys Ala Pro  
565 570 575  
Lys Ala Ser Pro Val Gln His Ala Leu Pro Ser Ser Leu Ser Val Pro  
580 585 590  
His Thr Ala Ile Leu Val Thr Gly Ala Gln Leu Cys Gly Pro Ala Val  
595 600 605  
Asn Leu Ser Gln Ile Lys Asp Thr Ala Cys Lys Ser Leu Leu Gly Leu  
610 615 620  
Glu Glu Lys Lys His Ala Glu Ala Pro Ala Gly Glu Asn Pro Pro Arg  
625 630 635 640  
Gly Pro Gly Asp Ala Arg Ala Gly Ser Gly Lys Ala Lys Leu Pro Gln  
645 650 655  
Glu Ser Pro Ser Ser Ala Ser Ala Leu Ala Glu Trp Ala Ser Ile Arg  
660 665 670  
Ser Arg Ile Leu Lys Asn Ala Glu Ser Asp Pro Arg Ser Ser Glu Arg  
675 680 685

Asp Gln Leu Arg Pro Gly Asp Glu Ser Thr Pro Arg Gly Arg Cys Asp  
 690 695 700  
 Ser Arg Gly Asn Gln Arg Lys Thr Pro Pro Val Asn Ala Lys Phe Ser  
 705 710 715 720  
 Ile Met Pro Ala Trp Gln Lys Phe Ser Asp Gly Gly Thr Glu Thr Ser  
 725 730 735  
 Lys Gln Ser Thr Glu Ala Glu Ser Ile Arg Lys Arg Pro Met Leu Gly  
 740 745 750  
 Pro Ser Glu Glu Thr Ala Pro Gln Pro Pro Pro Ala Gly Val Arg Glu  
 755 760 765  
 Leu Gly Lys Gly Pro Glu Lys Leu Gly Met His Arg Glu Pro Ala Asp  
 770 775 780  
 Thr Thr Glu Gly Cys Lys Phe Ala Lys Asp Leu Pro Ser Phe Leu Val  
 785 790 795 800  
 Pro Ser Leu Pro Tyr Pro Pro Gln Lys Val Val Ala His Thr Glu Phe  
 805 810 815  
 Thr Thr Ser Ser Asp Ser Glu Thr Ala Asn Gly Ile Ala Lys Pro Asp  
 820 825 830  
 Pro Val Met Pro Gly Gly Glu Glu Lys Ala Ser Pro Phe Gly Ile Lys  
 835 840 845  
 Leu Arg Arg Thr Asn Tyr Ser Leu Arg Phe Asn Cys Asp Gln Gln Ala  
 850 855 860  
 Glu Gln Lys Lys Lys Lys Arg His Ser Ser Thr Gly Asp Ser Ala Asp  
 865 870 875 880  
 Ala Gly Pro Pro Ala Ala Gly Ser Ala Arg Gly Glu Lys Glu Met Glu  
 885 890 895  
 Gly Val Ala Leu Lys His Gly Pro Ser Leu Pro Gln Glu Arg Lys Gln  
 900 905 910  
 Ala Pro Ser Thr Arg Arg Asp Ser Ala Glu Pro Ser Ser Ser Arg Ser

915 920 925  
Val Pro Val Ala His Pro Gly Pro Pro Pro Ala Ser Ser Gln Thr Pro  
930 935 940  
Ala Pro Glu His Asp Lys Ala Ala Asn Lys Met Pro Leu Ala Gln Lys  
945 950 955 960  
Pro Ala Leu Ala Pro Lys Pro Thr Ser Gln Thr Pro Pro Ala Ser Pro  
965 970 975  
Leu Ser Lys Leu Ser Arg Pro Tyr Leu Val Glu Leu Leu Ser Arg Arg  
980 985 990  
Ala Gly Arg Pro Asp Pro Glu Pro Ser Glu Pro Ser Lys Glu Asp Gln  
995 1000 1005  
Glu Ser Ser Asp Arg Arg Pro Pro Ser Pro Pro Gly Pro Glu Glu Arg  
1010 1015 1020  
Lys Gly Gln Lys Arg Asp Glu Glu Glu Glu Ala Thr Glu Arg Lys Pro  
1025 1030 1035 1040  
Ala Ser Pro Pro Leu Pro Ala Thr Gln Gln Glu Lys Pro Ser Gln Thr  
1045 1050 1055  
Pro Glu Ala Gly Arg Lys Glu Lys Pro Met Leu Gln Ser Arg His Ser  
1060 1065 1070  
Leu Asp Gly Ser Lys Leu Thr Glu Lys Val Glu Thr Ala Gln Pro Leu  
1075 1080 1085  
Trp Ile Thr Leu Ala Leu Gln Lys Gln Lys Gly Phe Arg Glu Gln Gln  
1090 1095 1100  
Ala Thr Arg Glu Glu Arg Lys Gln Ala Arg Glu Ala Lys Gln Ala Glu  
1105 1110 1115 1120  
Lys Leu Ser Lys Glu Asn Val Ser Val Ser Val Gln Pro Gly Ser Ser  
1125 1130 1135  
Ser Val Ser Arg Ala Gly Ser Leu His Lys Ser Thr Ala Leu Pro Glu  
1140 1145 1150

Glu Lys Arg Pro Glu Thr Ala Val Ser Arg Leu Glu Arg Arg Glu Gln

1155

1160

1165

Leu Lys Lys Ala Asn Thr Leu Pro Thr Ser Val Thr Val Glu Ile Ser

1170

1175

1180

Asp Ser Ala Pro Pro Ala Pro Leu Val Lys Glu Val Thr Lys Arg Phe

1185

1190

1195

1200

Ser Thr Pro Asp Ala Ala Pro Val Ser Thr Glu Pro Ala Trp Leu Ala

1205

1210

1215

Leu Ala Lys Arg Lys Ala Lys Ala Trp Ser Asp Cys Pro Gln Ile Ile

1220

1225

1230

Lys

<210> 3889

<211> 133

<212> PRT

<213> Homo sapiens

<400> 3889

Met Leu Thr Asp Val Cys His Leu Val Thr Ser Phe Gln Val Phe Pro

1

5

10

15

Pro Pro Leu Ser Phe Leu Ser Ser Leu Leu Cys Cys Phe Lys Ile Cys

20

25

30

Met Ser Leu Thr Gly Met Pro Val Thr Ser Ala Asn Phe Val Ser Ser

35

40

45

Leu Pro His Glu Met Ile Leu Leu Lys Gly Thr Arg Tyr Val Ser Ile

50

55

60

Cys Thr Ser Leu Lys Ala Ser Gly Tyr Gly Pro Leu Thr His Trp Ser

65                      70                      75                      80  
Trp Leu Gln Asn Asn Ser Ala Glu Thr Ser Phe Gln Leu Lys Ile Pro  
                            85                      90                      95  
Ser Asn Val Thr Gln Gly Arg Asn Ile Ala Pro Ile Ile Lys Gly Gly  
                            100                      105                      110  
Asn Gly Gln Arg Gly Ser Ala Ala Gly Ser Gln Lys Arg Lys Val Arg  
                            115                      120                      125  
Val Leu Phe Ile Cys  
                            130

&lt;210&gt; 3890

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3890

Met Gln Leu His Asp Arg Gly Leu Arg His Leu Phe Ser Ala Pro Ala  
1                      5                      10                      15  
Gly Ser Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile  
                            20                      25                      30  
Asn Gly Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile  
                            35                      40                      45  
Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile  
50                      55                      60  
Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Ser Gln Met  
65                      70                      75                      80  
Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Ser Gln Ile  
                            85                      90                      95

Asn Gly Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile  
                   100                                  105                                  110  
 Asn His Trp Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile  
                   115                                  120                                  125  
 Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile  
                   130                                  135                                  140  
 Asn His Trp Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Ser Gln Ile  
                   145                                  150                                  155                                  160  
 Asn Cys Arg Cys Asn Ser Ser Ala Gly Gly Arg Arg  
   165  170

<210> 3891

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3891

Met Ala Phe Ser Ser Ser Gln Ala Pro Tyr Leu Ser Pro Ala Val Pro  
           1                                  5                                  10                                  15  
 Phe Ser Gly Thr Ile Gln Gly Gly Leu Gln Asp Gly Leu Gln Ile Thr  
                                   20                                  25                                  30  
 Val Asn Gly Thr Val Leu Ser Ser Ser Gly Thr Arg Phe Ala Val Asn  
                                   35                                  40                                  45  
 Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro  
                                   50                                  55                                  60  
 Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly  
                                   65                                  70                                  75                                  80  
 Ser Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly

	85	90	95
Met Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val			
100	105	110	
Met Val Asn Gly Ile Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe			
115	120	125	
His Arg Val Asp Thr Ile Ser Val Asn Gly Ser Val Gln Leu Ser Tyr			
130	135	140	
Ile Ser Phe Gln Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile			
145	150	155	160
Thr Gln Thr Val Ile His Thr Val Gln Ser Ala Pro Gly Gln Met Phe			
165	170	175	
Ser Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro			
180	185	190	
Met Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser			
195	200	205	
Ile Leu Leu Ser Gly Thr Val Leu Pro Ser Ala Gln Arg Phe His Ile			
210	215	220	
Asn Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Pro Arg Phe			
225	230	235	240
Asp Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly			
245	250	255	
Ser Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln			
260	265	270	
Ser Phe Ser Val Trp Ile Leu Cys Glu Ala His Cys Leu Lys Val Ala			
275	280	285	
Val Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu			
290	295	300	
Pro Thr Ile Asn Arg Leu Glu Val Gly Gly Asp Ile Gln Leu Thr His			
305	310	315	320

Val Gln Thr

<210> 3892

<211> 209

<212> PRT

<213> Homo sapiens

<400> 3892

Met	Pro	Ser	Met	Leu	Val	Val	Asn	Val	His	Leu	Ala	Pro	Gly	Arg	Ala
1				5					10					15	
Asn	Pro	His	Gly	Val	Cys	Val	Asn	Thr	Ser	Leu	Asn	His	Ser	Leu	Ile
			20					25					30		
Tyr	Pro	Ile	Phe	Val	Val	His	Val	Ser	Arg	Ile	Gln	Cys	Leu	Cys	Ser
		35					40					45			
Arg	Ile	Trp	Phe	Ser	Leu	His	Val	Phe	Gly	Val	Cys	Ala	Tyr	Arg	Cys
	50					55					60				
Ala	Trp	Cys	Gly	Leu	Ser	Pro	Arg	Pro	Val	Cys	Lys	Arg	His	Pro	Thr
	65					70				75				80	
Gln	Arg	Pro	Arg	Gln	Asp	Pro	Gly	Leu	Trp	Ala	Val	Val	Pro	Gly	Leu
				85					90					95	
Pro	Leu	Gln	Gly	Arg	Cys	Val	Leu	Leu	Arg	Glu	His	Pro	Cys	Leu	Gly
		100							105					110	
Ser	Asn	Pro	Gly	Ser	Gly	Arg	Gln	Val	Val	Gly	Val	Ala	Ala	Ser	Ser
		115					120						125		
Ala	Ser	Leu	Asp	Asp	Ala	Gln	Glu	His	Ala	Gln	Ser	Gln	Arg	Ala	Gln
		130					135						140		
Leu	Leu	Gly	Ser	Leu	Thr	Leu	Gly	Trp	Ala	Leu	Gly	Arg	Gln	Pro	Phe



145                      150                      155                      160  
 Gly Glu Cys Val Leu Met Val Val Ser Gly Val Ser Leu Thr Asn Asn  
                             165                      170                      175  
 Pro Pro Cys Pro Leu Asp Thr Gly Val Pro Ser Ser Leu Ala Val Phe  
                             180                      185                      190  
 Leu Ile Arg Val Pro His Arg Pro Thr Ala Arg Cys Val Ser Pro Asp  
                             195                      200                      205  
 Leu

<210> 3893

<211> 465

<212> PRT

<213> Homo sapiens

<400> 3893

Met Gly Val Glu Ala Val Met Ala Leu Leu Glu Gly Thr Pro Asp Thr  
     1                      5                      10                      15  
 Pro Ala Cys Val Val Ser Leu Ser Gly Asn Gln Ala Val Arg Leu Pro  
                             20                      25                      30  
 Leu Met Glu Cys Val Gln Val Thr Lys Asp Val Thr Lys Ala Met Asp  
                             35                      40                      45  
 Glu Lys Lys Phe Asp Glu Ala Leu Lys Leu Arg Gly Arg Ser Phe Met  
                             50                      55                      60  
 Asn Asn Trp Glu Val Tyr Lys Leu Leu Ala His Val Arg Pro Pro Val  
                             65                      70                      75                      80  
 Ser Lys Ser Gly Ser His Thr Val Ala Val Met Asn Val Gly Ala Pro  
                             85                      90                      95

Ala Ala Gly Met Asn Ala Ala Val Arg Ser Thr Val Arg Ile Gly Leu  
 100 105 110  
 Ile Gln Gly Asn Arg Val Leu Val Val His Asp Gly Phe Glu Gly Leu  
 115 120 125  
 Ala Lys Gly Gln Ile Glu Glu Ala Gly Trp Ser Tyr Val Gly Gly Trp  
 130 135 140  
 Thr Asp Gln Gly Gly Ser Lys Leu Gly Thr Lys Arg Thr Leu Pro Lys  
 145 150 155 160  
 Lys Ser Phe Glu Gln Ile Ser Ala Asn Ile Thr Lys Phe Asn Ile Gln  
 165 170 175  
 Gly Leu Val Ile Ile Gly Gly Phe Glu Ala Tyr Thr Gly Gly Leu Glu  
 180 185 190  
 Leu Met Glu Gly Arg Lys Gln Phe Asp Glu Leu Cys Ile Pro Phe Val  
 195 200 205  
 Val Ile Pro Ala Thr Val Ser Asn Asn Val Pro Gly Ser Asp Phe Ser  
 210 215 220  
 Val Gly Ala Asp Thr Ala Leu Asn Thr Ile Cys Thr Thr Cys Asp Arg  
 225 230 235 240  
 Ile Lys Gln Ser Ala Ala Gly Thr Lys Arg Arg Val Phe Ile Ile Glu  
 245 250 255  
 Thr Met Gly Gly Tyr Cys Gly Tyr Leu Ala Thr Met Ala Gly Leu Ala  
 260 265 270  
 Ala Gly Ala Asp Ala Ala Tyr Ile Phe Glu Glu Pro Phe Thr Ile Arg  
 275 280 285  
 Asp Leu Gln Ala Asn Val Glu His Leu Val Gln Lys Met Lys Thr Thr  
 290 295 300  
 Val Lys Arg Gly Leu Val Leu Arg Asn Glu Lys Cys Asn Glu Asn Tyr  
 305 310 315 320  
 Thr Thr Asp Phe Ile Phe Asn Leu Tyr Ser Glu Glu Gly Lys Gly Ile

	325		330		335
Phe	Asp	Ser	Arg	Lys	Asn
Val	Leu	Gly	His	Met	Gln
Gln	Gly	Gly	Ser		
	340		345		350
Pro	Thr	Pro	Phe	Asp	Arg
Asn	Phe	Ala	Thr	Lys	Met
Gly	Ala	Lys	Ala		
	355		360		365
Met	Asn	Trp	Met	Ser	Gly
Lys	Ile	Lys	Glu	Ser	Tyr
Arg	Asn	Gly	Arg		
	370		375		380
Ile	Phe	Ala	Asn	Thr	Pro
Asp	Ser	Gly	Cys	Val	Leu
Gly	Met	Arg	Lys		
	385		390		395
					400
Arg	Ala	Leu	Val	Phe	Gln
Pro	Val	Ala	Glu	Leu	Lys
Asp	Gln	Thr	Asp		
	405		410		415
Phe	Glu	His	Arg	Ile	Pro
Lys	Glu	Gln	Trp	Trp	Leu
Lys	Leu	Arg	Pro		
	420		425		430
Ile	Leu	Lys	Ile	Leu	Ala
Lys	Tyr	Glu	Ile	Asp	Leu
Asp	Thr	Ser	Asp		
	435		440		445
His	Ala	His	Leu	Glu	His
Ile	Thr	Arg	Lys	Arg	Ser
Gly	Glu	Ala	Ala		
	450		455		460
Val					
	465				

&lt;210&gt; 3894

&lt;211&gt; 158

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3894

Met Thr Asp Gly Thr Asn Trp Pro Gln Gln Ile His Ser Arg Ala Ser

1

5

10

15

Thr Ser Leu Ala Ser Pro Ser His Pro Gly Leu Arg Ser Thr Gly Leu  
                     20                            25                            30  
 Glu Ala Gly Pro Gln Val His Arg Val Glu Ala Ala Trp Leu Gln Glu  
                     35                            40                            45  
 Ser Asp Gly Gly Val Arg Pro Leu Arg Leu Ser Gln Pro Ala Cys Trp  
                     50                            55                            60  
 Pro Cys Leu Pro Arg His Arg Glu Gly Trp Cys Thr Ser Pro Arg Gln  
                     65                            70                            75                            80  
 Asp Cys Glu Pro Glu Arg Gly Gly Met Glu Val Glu Leu Glu Pro Cys  
                                     85                            90                            95  
 Pro His Leu Ser Leu Leu Ile Arg Gly Gly Pro Val Gly Phe Leu Pro  
                     100                            105                            110  
 Ala Gly Ser Pro Arg Ala Ala Trp Lys Ala Leu Ile Gly Arg Ala Leu  
                     115                            120                            125  
 Val Ala Val Thr Trp Lys Leu Ala Val Leu Gly Arg Gly Ala Phe Cys  
                     130                            135                            140  
 Ser Phe Gln Gly His Ser Val Phe Leu His Ala Asp Pro Leu  
                     145                            150                            155

&lt;210&gt; 3895

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3895

Met Gly Ser Ser Gly Leu Leu Ser Leu Leu Val Leu Phe Val Leu Leu  
                     1                            5                            10                            15  
 Ala Asn Val Gln Gly Pro Gly Leu Thr Asp Trp Leu Phe Pro Arg Arg

20 25 30  
 Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys  
 35 40 45  
 Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser  
 50 55 60  
 Cys Glu Lys Lys Cys Leu Asp Leu Lys Gln Gly Asn Ile Gln Ser Cys  
 65 70 75 80  
 Arg Ile Thr Asn Pro Ser Ser Pro Cys Pro His Leu Leu Pro Ser Trp  
 85 90 95  
 Thr Gly Phe Val Pro  
 100

&lt;210&gt; 3896

&lt;211&gt; 1315

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3896

Met Asn Phe Leu Ser Thr Ala Glu Ser Arg Thr Ala Gln Ala Ala Ala  
 1 5 10 15  
 Ser Gly Thr Thr Leu Leu Pro Gln Phe Arg Ala Pro Ser Trp Gln Thr  
 20 25 30  
 Gly Met His Ser Ser Ala Ala Thr Glu Leu Phe Ala Thr Gly Pro Leu  
 35 40 45  
 Pro Ser Thr Gly Thr Leu Pro Pro Ser Leu Ser Ala Tyr Gln His Pro  
 50 55 60  
 Thr Thr Phe Ser Asn Arg Asn Phe Ala Thr Thr Ser Pro Leu Val Leu  
 65 70 75 80

Gln Asp Ser Thr Phe Asn Thr Thr Ser Asn Gly Ile Leu Ser His His  
85 90 95  
Asp Pro Leu Leu Gln Ile Lys Thr Ser Gln Gly Thr Val Pro Thr Ala  
100 105 110  
Leu Ala Phe Glu Arg Leu Gly Ser Ser Val Leu Ser Asn Ser Ile Pro  
115 120 125  
Pro Gln Ser Ser Thr Tyr Arg Ser Ala Gln Glu Ser Ala Pro His Leu  
130 135 140  
Leu Gln Pro Gln Phe Ser Leu Leu Pro Ser Ala Leu Gly Gly Ser Gln  
145 150 155 160  
Gln Thr Pro Gln Ala Tyr Ser Ser Thr Leu Phe Thr Ser Ser Thr Ala  
165 170 175  
Ser Ile Glu Arg Ala Leu Leu Arg Glu Cys Ser Val Ile Lys His His  
180 185 190  
Gln Arg Pro Ser Gly Thr Gln Ser Ile Gln Ala Gln Leu Thr Gly Ser  
195 200 205  
Gln His Ser Leu His Ser Tyr Leu Ser Asn Ser Ser Val Val Asn Phe  
210 215 220  
Gln Glu Thr Thr Arg Gln Ser Ser Leu Ser Cys Ser Pro Ile Gly Asp  
225 230 235 240  
Ser Thr Gln Asn Leu Pro Asp Ser Ser Pro Thr Gln Asn Tyr Ile Ser  
245 250 255  
Met His Ser Ser Gln Asn Val Gln Thr Gln Glu Ser Ser Ser Pro Gln  
260 265 270  
Ser Gln Lys Phe Leu Pro Ala Val Gln Ser Ser Ser Phe Ala Ser Ser  
275 280 285  
Thr His Cys Gln Thr Leu Gln Asn Asn Ile Thr Ser Pro Asp Pro Lys  
290 295 300  
Ser Tyr Ala Glu Arg Lys Leu Asp Ser Asp Val Tyr Pro Ser Ser Lys

305                      310                      315                      320  
Gln Glu Asp Gly Phe Pro Met Gln Glu Leu Gln Val Leu Gln Pro Gln  
                         325                      330                      335  
Ala Ser Leu Glu Ser Ser Thr Gln Arg Leu Ser Asp Gly Glu Ile Asn  
                         340                      345                      350  
Ala Gln Glu Ser Thr Tyr Lys Val Ser Lys Ala Asp Asp Arg Tyr Ser  
                         355                      360                      365  
Gln Ser Val Ile Arg Ser Asn Ser Arg Leu Glu Asp Gln Val Ile Gly  
                         370                      375                      380  
Val Ala Leu Gln Ala Ser Lys Lys Glu Glu Ser Val Val Gly Ser Val  
385                      390                      395                      400  
Thr Gln Leu Asn Gln Gln Ile Gly Gln Val Asn Asn Ala Ala Thr Leu  
                         405                      410                      415  
Asp Leu Lys Asn Ser Thr Asn Leu Ile Gln Thr Pro Gln Ile Arg Leu  
                         420                      425                      430  
Asn Thr Lys Asp Leu Lys Gln Gln His Pro Leu Ile Leu Lys Val His  
                         435                      440                      445  
Glu Ser Lys Val Gln Glu Gln His Asp Gln Ile Ile Asn Ala Ser Ser  
                         450                      455                      460  
Gln Ile Gln Ile Pro Asn His Ala Leu Gly His Gly His Gln Ala Ser  
465                      470                      475                      480  
Leu Pro Asn Thr Gln Val Leu Leu Asp Ser Ala Cys Asp Leu Gln Ile  
                         485                      490                      495  
Leu Gln Gln Ser Ile Leu Gln Ala Gly Leu Gly Gln Val Lys Ala Ser  
                         500                      505                      510  
Leu Gln Ala Gln Arg Val Gln Ser Pro Gln Gln Ile Val His Pro Phe  
                         515                      520                      525  
Leu Gln Met Glu Gly His Val Ile Gln Ser Asn Gly Asp His Ser Gln  
                         530                      535                      540

Gln Gln Leu His Pro Gln Asn Ser Glu Val Met Lys Met Asp Leu Ser  
545 550 555 560  
Glu Ser Ser Lys Pro Leu Gln Gln His Leu Thr Thr Lys Gly His Phe  
565 570 575  
Ser Glu Thr Asn Gln His Asp Ser Lys Asn Gln Phe Val Ser Leu Gly  
580 585 590  
Ser Met Cys Phe Pro Glu Ala Val Leu Leu Ser Asp Glu Arg Asn Ile  
595 600 605  
Leu Ser Asn Val Asp Asp Ile Leu Ala Ala Thr Ala Ala Ala Cys Gly  
610 615 620  
Val Thr Pro Thr Asp Phe Ser Lys Ser Thr Ser Asn Glu Thr Met Gln  
625 630 635 640  
Ala Val Glu Asp Gly Asp Ser Lys Ser His Phe Gln Gln Ser Leu Asp  
645 650 655  
Val Arg His Val Thr Ser Asp Phe Asn Ser Met Thr Ala Thr Val Gly  
660 665 670  
Lys Pro Gln Asn Ile Asn Asp Thr Ser Leu Asn Gly Asn Gln Val Thr  
675 680 685  
Val Asn Leu Ser Pro Val Pro Ala Leu Gln Ser Lys Met Thr Leu Asp  
690 695 700  
Gln Gln His Ile Glu Thr Pro Gly Gln Asn Ile Pro Thr Lys Val Thr  
705 710 715 720  
Ser Ala Val Val Gly Pro Ser His Glu Val Gln Glu Gln Ser Ser Gly  
725 730 735  
Pro Phe Lys Lys Gln Ser Ala Thr Asn Leu Glu Ser Glu Glu Asp Ser  
740 745 750  
Glu Ala Pro Val Asp Ser Thr Leu Asn Asn Asn Arg Asn Gln Glu Phe  
755 760 765  
Val Ser Ser Ser Arg Ser Ile Ser Gly Glu Ser Ala Thr Ser Glu Ser



770 775 780  
Glu Phe Thr Leu Gly Gly Asp Asp Ser Gly Val Ser Met Asn Pro Ala  
785 790 795 800  
Arg Ser Ala Leu Ala Leu Leu Ala Met Ala Gln Ser Gly Asp Ala Val  
805 810 815  
Ser Val Lys Ile Glu Glu Glu Asn Gln Asp Leu Met His Phe Asn Leu  
820 825 830  
Gln Lys Lys Arg Ala Lys Gly Lys Gly Gln Val Lys Glu Glu Asp Asn  
835 840 845  
Ser Asn Gln Lys Gln Leu Lys Arg Pro Ala Gln Gly Lys Arg Gln Asn  
850 855 860  
Pro Arg Gly Thr Asp Ile Tyr Leu Pro Tyr Thr Pro Pro Ser Ser Glu  
865 870 875 880  
Ser Cys His Asp Gly Tyr Gln His Gln Glu Lys Met Arg Gln Lys Ile  
885 890 895  
Lys Glu Val Glu Glu Lys Gln Pro Glu Val Lys Thr Gly Phe Ile Ala  
900 905 910  
Ser Phe Leu Asp Phe Leu Lys Ser Gly Pro Lys Gln Gln Phe Ser Thr  
915 920 925  
Leu Ala Val Arg Met Pro Asn Arg Thr Arg Arg Pro Gly Thr Gln Met  
930 935 940  
Val Arg Thr Phe Cys Pro Pro Pro Leu Pro Lys Pro Ser Ser Thr Thr  
945 950 955 960  
Pro Thr Pro Leu Val Ser Glu Thr Gly Gly Asn Ser Pro Ser Asp Lys  
965 970 975  
Val Asp Asn Glu Leu Lys Asn Leu Glu His Leu Ser Ser Phe Ser Ser  
980 985 990  
Asp Glu Asp Asp Pro Gly Tyr Ser Gln Asp Ala Tyr Lys Ser Val Ser  
995 1000 1005

Thr Pro Leu Thr Thr Leu Asp Ala Thr Ser Asp Lys Lys Lys Lys Thr  
1010 1015 1020  
Glu Ala Leu Gln Val Ala Thr Thr Ser Pro Thr Ala Asn Thr Thr Gly  
1025 1030 1035 1040  
Thr Ala Thr Thr Ser Ser Thr Thr Val Gly Ala Val Lys Gln Glu Pro  
1045 1050 1055  
Leu His Ser Thr Ser Tyr Ala Val Asn Ile Leu Glu Asn Ile Ser Ser  
1060 1065 1070  
Ser Glu Ser Ser Lys Pro Ile Glu Leu Asp Gly Leu Pro Ser Asp Gln  
1075 1080 1085  
Phe Ala Lys Gly Gln Asp Thr Val Ala Ile Glu Gly Phe Thr Asp Glu  
1090 1095 1100  
Glu Asp Thr Glu Ser Gly Gly Glu Gly Gln Tyr Arg Glu Arg Asp Glu  
1105 1110 1115 1120  
Phe Val Val Lys Ile Glu Asp Ile Glu Thr Phe Lys Glu Ala Leu Lys  
1125 1130 1135  
Thr Gly Lys Glu Pro Pro Ala Ile Trp Lys Val Gln Lys Ala Leu Leu  
1140 1145 1150  
Gln Lys Phe Val Pro Glu Ile Arg Asp Gly Gln Arg Glu Phe Ala Ala  
1155 1160 1165  
Thr Asn Ser Tyr Leu Gly Tyr Phe Gly Asp Ala Lys Ser Lys Tyr Lys  
1170 1175 1180  
Arg Ile Tyr Val Lys Phe Ile Glu Asn Ala Asn Lys Lys Glu Tyr Val  
1185 1190 1195 1200  
Arg Val Cys Ser Lys Lys Pro Arg Asn Lys Pro Ser Gln Thr Ile Arg  
1205 1210 1215  
Thr Val Gln Ala Lys Pro Ser Ser Ser Ser Lys Thr Ser Asp Pro Leu  
1220 1225 1230  
Ala Ser Lys Thr Thr Thr Thr Lys Ala Pro Ser Val Lys Pro Lys Val

1235 1240 1245  
Lys Gln Pro Lys Val Lys Ala Glu Pro Pro Pro Lys Lys Arg Lys Lys  
1250 1255 1260  
Trp Lys Glu Glu Phe Ser Ser Ser Gln Ser Asp Ser Ser Pro Glu Ile  
1265 1270 1275 1280  
His Thr Ser Ser Ser Asp Asp Glu Glu Phe Glu Pro Pro Ala Pro Phe  
1285 1290 1295  
Val Thr Arg Phe Leu Asn Thr Arg Ala Met Lys Glu Thr Phe Lys Ser  
1300 1305 1310  
Tyr Met Glu  
1315

&lt;210&gt; 3897

&lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3897

Met Ala Leu Gln Ala Leu Ala Arg Leu Pro Arg Leu Glu Gly Gly Ser  
1 5 10 15  
Gly Asn Ser Lys Val Gly Phe Ser Ser Gly Trp Ser Ala Phe Leu Pro  
20 25 30  
Arg Arg Leu Gly Ser Gly Ile Ser Gly Phe Phe Cys Arg Ile Glu Thr  
35 40 45  
Cys Pro Trp Ala Leu Thr Leu Asn Thr Gly Arg Ser Ala Ala Cys Cys  
50 55 60  
Leu Ser Val Ala Trp Pro Leu His Pro Pro Ser Pro Ser Pro Cys Tyr  
65 70 75 80

Pro Val Arg Arg Val Arg Gln Ser Leu His Pro Ser Ser Ser Trp Gly  
                             85                            90                            95  
 Gly Arg Ser Ala Glu Ala Ser Gly Asp Leu Leu Arg Gly Val Cys Leu  
                             100                            105                            110  
 Ala Arg Asp Val Ser Ile Pro His Arg Gln Gly Arg Cys Leu Pro Arg  
                             115                            120                            125  
 Ser Pro Trp Gly Ser Ala Gly Val Asn Ala Ala Leu Gln Gly Gly Arg  
                             130                            135                            140  
 Gly Arg Ala Ser Ser Gly Gly Gly Gly Gly Ala Gln Gly Val Gln Leu  
                             145                            150                            155                            160  
 Gly His Lys Leu Thr Ala  
                             165

&lt;210&gt; 3898

&lt;211&gt; 803

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3898

Met Pro Trp Val Glu Pro Lys Pro Arg Pro Gly Pro Glu Gln Lys Pro  
           1                            5                            10                            15  
 Lys Leu Thr Lys Pro Asp Ser Ala Thr Gly Pro Gln Trp Tyr Gln Glu  
                             20                            25                            30  
 Ser Gln Glu Ser Glu Ser Glu Gly Lys Gln Pro Pro Pro Gly Pro Leu  
                             35                            40                            45  
 Ala Pro Pro Lys Ser Pro Glu Pro Ser Gly Pro Leu Ala Ser Glu Gln  
                             50                            55                            60  
 Asp Ala Pro Leu Pro Glu Gly Asp Asp Ala Pro Pro Arg Pro Ser Met

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Ile Leu Gly Gly Ser Leu Gly Met Gly Gln Leu Leu Leu Arg Ala Lys  
305 310 315 320  
Ala Met Arg Leu Leu Tyr Tyr Leu Lys Thr Glu Asp Pro Glu Tyr Asp  
325 330 335  
Val Gln Ser Lys Gln Trp Leu Thr His Leu Leu Asp Gln Phe Thr Asn  
340 345 350  
Ile Lys Asn Ile Leu Ala Leu Lys Lys Ile Glu Val Val His Phe Thr  
355 360 365  
Ser Leu Ser Arg Gln Leu Glu Phe Glu Ala Thr Ser Val Thr Val Ile  
370 375 380  
Pro Val Phe His Leu Ala Tyr Ile Leu Ile Ile Leu Phe Ala Val Thr  
385 390 395 400  
Ser Cys Phe Gly Phe Asp Cys Ile Arg Asn Lys Met Cys Val Ala Ala  
405 410 415  
Phe Gly Val Ile Ser Ala Phe Leu Ala Val Val Ser Gly Phe Gly Leu  
420 425 430  
Leu Leu His Ile Gly Val Pro Phe Val Ile Ile Val Ala Asn Ser Pro  
435 440 445  
Phe Leu Ile Leu Gly Val Gly Val Asp Asp Met Phe Ile Met Ile Ser  
450 455 460  
Ala Trp His Lys Thr Asn Leu Ala Gly Asp Ile Arg Glu Arg Met Ser  
465 470 475 480  
Asn Val Tyr Ser Lys Ala Ala Val Ser Ile Thr Ile Thr Thr Ile Thr  
485 490 495  
Asn Ile Leu Ala Leu Tyr Thr Gly Ile Met Ser Ser Phe Arg Ser Val  
500 505 510  
Gln Cys Phe Cys Ile Tyr Thr Gly Thr Thr Leu Leu Phe Cys Tyr Phe  
515 520 525  
Tyr Asn Ile Thr Cys Phe Gly Ala Phe Met Ala Leu Asp Gly Lys Arg

530                      535                      540  
Glu Val Val Cys Leu Cys Trp Leu Lys Lys Ala Asp Pro Lys Trp Pro  
545                      550                      555                      560  
Ser Phe Lys Lys Phe Cys Cys Phe Pro Phe Gly Ser Val Pro Asp Glu  
                         565                      570                      575  
His Gly Thr Asp Ile His Pro Met Ser Leu Phe Phe Arg Asp Tyr Phe  
                         580                      585                      590  
Gly Pro Phe Leu Thr Arg Ser Glu Ser Lys Tyr Phe Val Val Phe Ile  
                         595                      600                      605  
Tyr Val Leu Tyr Ile Ile Ser Ser Ile Tyr Gly Cys Phe His Val Gln  
                         610                      615                      620  
Glu Gly Leu Asp Leu Arg Asn Leu Ala Ser Asp Asp Ser Tyr Ile Thr  
625                      630                      635                      640  
Pro Tyr Phe Asn Val Glu Glu Asn Tyr Phe Ser Asp Tyr Gly Pro Arg  
                         645                      650                      655  
Val Met Val Ile Val Thr Lys Lys Val Asp Tyr Trp Asp Lys Asp Val  
                         660                      665                      670  
Arg Gln Lys Leu Glu Asn Cys Thr Lys Ile Phe Glu Lys Asn Val Tyr  
                         675                      680                      685  
Val Asp Lys Asn Leu Thr Glu Phe Trp Leu Asp Ala Tyr Val Gln Tyr  
                         690                      695                      700  
Leu Lys Gly Asn Ser Gln Asp Pro Asn Glu Lys Asn Thr Phe Met Asn  
705                      710                      715                      720  
Asn Ile Pro Asp Phe Leu Ser Asn Phe Pro Asn Phe Gln His Asp Ile  
                         725                      730                      735  
Asn Ile Ser Ser Ser Asn Glu Ile Ile Ser Ser Arg Gly Phe Ile Gln  
                         740                      745                      750  
Thr Thr Asp Val Ser Ser Ser Ala Lys Lys Lys Ile Leu Leu Phe Gln  
                         755                      760                      765

Leu Arg Arg Ile Ala Glu Asp Cys Gln Ile Pro Leu Met Val Tyr Asn  
 770 775 780  
 Gln Ala Phe Ile Tyr Phe Asp Gln Tyr Ala Ala Ile Leu Glu Asp Thr  
 785 790 795 800  
 Val Arg Asn

<210> 3899

<211> 520

<212> PRT

<213> Homo sapiens

<400> 3899

Met Glu Phe His Asn Gly Gly His Val Ser Gly Ile Gly Gly Phe Leu  
 1 5 10 15  
 Val Ser Leu Thr Ser Arg Met Lys Pro His Thr Leu Ala Val Thr Pro  
 20 25 30  
 Ala Leu Ile Phe Ala Ile Thr Val Ala Thr Ile Gly Ser Phe Gln Phe  
 35 40 45  
 Gly Tyr Asn Thr Gly Val Ile Asn Ala Pro Glu Thr Ile Ile Lys Glu  
 50 55 60  
 Phe Ile Asn Lys Thr Leu Thr Asp Lys Ala Asn Ala Pro Pro Ser Glu  
 65 70 75 80  
 Val Leu Leu Thr Asn Leu Trp Ser Leu Ser Val Ala Ile Phe Ser Val  
 85 90 95  
 Gly Gly Met Ile Gly Ser Phe Ser Val Gly Leu Phe Val Asn Arg Phe  
 100 105 110  
 Gly Arg Arg Asn Ser Met Leu Ile Val Asn Leu Leu Ala Ala Thr Gly



115	120	125
Gly Cys Leu Met Gly Leu Cys Lys Ile Ala Glu Ser Val Glu Met Leu		
130	135	140
Ile Leu Gly Arg Leu Val Ile Gly Leu Phe Cys Gly Leu Cys Thr Gly		
145	150	155
Phe Val Pro Met Tyr Ile Gly Glu Ile Ser Pro Thr Ala Leu Arg Gly		
165	170	175
Ala Phe Gly Thr Leu Asn Gln Leu Gly Ile Val Ile Gly Ile Leu Val		
180	185	190
Ala Gln Ile Phe Gly Leu Glu Leu Ile Leu Gly Ser Glu Glu Leu Trp		
195	200	205
Pro Val Leu Leu Gly Phe Thr Ile Leu Pro Ala Ile Leu Gln Ser Ala		
210	215	220
Ala Leu Pro Cys Cys Pro Glu Ser Pro Arg Phe Leu Leu Ile Asn Arg		
225	230	235
Lys Lys Glu Glu Asn Ala Thr Arg Ile Leu Gln Arg Leu Trp Gly Thr		
245	250	255
Gln Asp Val Ser Gln Asp Ile Gln Glu Met Lys Asp Glu Ser Ala Arg		
260	265	270
Met Ser Gln Glu Lys Gln Val Thr Val Leu Glu Leu Phe Arg Val Ser		
275	280	285
Ser Tyr Arg Gln Pro Ile Ile Ile Ser Ile Val Leu Gln Leu Ser Gln		
290	295	300
Gln Leu Ser Gly Ile Asn Ala Val Phe Tyr Tyr Ser Thr Gly Ile Phe		
305	310	315
Lys Asp Ala Gly Val Gln Gln Pro Ile Tyr Ala Thr Ile Ser Ala Gly		
325	330	335
Val Val Asn Thr Ile Phe Thr Leu Leu Ser Leu Phe Leu Val Glu Arg		
340	345	350

Ala Gly Arg Arg Thr Leu His Met Ile Gly Leu Gly Gly Met Ala Phe  
355 360 365  
Cys Ser Thr Leu Met Thr Val Ser Leu Leu Leu Lys Asn His Tyr Asn  
370 375 380  
Gly Met Ser Phe Val Cys Ile Gly Ala Ile Leu Val Phe Val Ala Cys  
385 390 395 400  
Phe Glu Ile Gly Pro Gly Pro Ile Pro Trp Phe Ile Val Ala Glu Leu  
405 410 415  
Phe Ser Gln Gly Pro Arg Pro Ala Ala Met Ala Val Ala Gly Cys Ser  
420 425 430  
Asn Trp Thr Ser Asn Phe Leu Val Gly Leu Leu Phe Pro Ser Ala Ala  
435 440 445  
Tyr Tyr Leu Gly Ala Tyr Val Phe Ile Ile Phe Thr Gly Phe Leu Ile  
450 455 460  
Thr Phe Leu Ala Phe Thr Phe Phe Lys Val Pro Glu Thr Arg Gly Arg  
465 470 475 480  
Thr Phe Glu Asp Ile Thr Arg Ala Phe Glu Gly Gln Ala His Gly Ala  
485 490 495  
Asp Arg Ser Gly Lys Asp Gly Val Met Gly Met Asn Ser Ile Glu Pro  
500 505 510  
Ala Lys Glu Thr Thr Thr Asn Val  
515 520

&lt;210&gt; 3900

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3900

Met Gly Arg Cys Ser Trp His Pro Glu Cys Val Ser Gly Gln Ala Leu

1 5 10 15

Val Lys Glu Ala Leu Ala Gly Thr Arg Asp Met Thr Ser Thr Leu Arg

20 25 30

Phe His Pro Gln Ser Thr Gln Met Arg Arg Val Ser Pro Gly Ala Pro

35 40 45

Pro Cys Pro Thr Pro Thr Leu Gly Gly Ile Leu Ser Arg Glu Met Gly

50 55 60

Pro Pro Ser Pro Arg Arg Pro Arg Ala Val Ala Val Arg Val Arg Lys

65 70 75 80

Ala Thr Thr Cys Ala Val Phe Val Val Thr Glu Thr Trp Glu Ser Leu

85 90 95

Thr Gly Ser Pro Thr Glu Ala Gly Ala Gly Leu Gly Ser Glu Ala Pro

100 105 110

Gly Glu Pro Arg Ala Ala Gly Phe Cys Thr His Leu Leu His Leu Pro

115 120 125

Thr His Thr Trp Lys Lys Ser Gln Ala His Leu Glu Ala Ala Gln Leu

130 135 140

Leu Ser Ser Cys Pro Pro Ile Pro Gly Phe Ser Ser Gln Leu His Pro

145 150 155 160

Gly Pro Gly Thr Pro Cys Asn Leu Gly Ser Pro Ala Pro Leu Arg Gly

165 170 175

Leu Pro Val Thr Trp Ser Gln Leu Pro Pro Arg Gly Ala Asp Leu Thr

180 185 190

Ser Thr Thr Cys Gln Trp His Val Pro Gly Glu Gln Glu Leu Gly Leu

195 200 205

Gln Gly Pro Cys Leu

210

&lt;210&gt; 3901

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3901

Met Ala Val Tyr Asn Met Val Pro Arg Arg Val Gly Ile Gln Arg Lys

1 5 10 15

Trp Glu Leu Ser Ser Glu Cys Ala Pro Asn Leu Arg Ser Asp Thr Pro

20 25 30

Ser Phe Leu Leu Tyr Phe Thr Gly Tyr Thr Asp Gln Cys Leu Tyr Asn

35 40 45

Val Gly Gly Asn Ser Ile Thr Val Asn Ile Ile Arg Gln Gly Ser Leu

50 55 60

Gly Thr Val Leu Glu Thr Asp Ser His Ser Pro Lys Pro Phe Arg Tyr

65 70 75 80

Ala Leu Ile Tyr Glu Phe Thr Ile Ile Phe Lys Thr Asn Ser Trp Ala

85 90 95

Arg Trp Pro Ala Pro Ile Val Pro Ala Ile Gln Glu Val Glu Glu Gly

100 105 110

Gly Phe Phe Glu Pro Arg Gly Leu Gly Leu

115 120

&lt;210&gt; 3902

&lt;211&gt; 449

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3902

Met Ile Val Thr Gln Pro Lys Gly Ile Gly Ser Thr Val Gln Pro Ala  
 1 5 10 15  
 Ala Lys Ile Ile Pro Thr Lys Ile Val Tyr Gly Gln Gln Gly Lys Thr  
 20 25 30  
 Gln Val Leu Ile Lys Pro Lys Pro Val Thr Phe Gln Ala Thr Val Val  
 35 40 45  
 Ser Glu Gln Thr Arg Gln Leu Val Thr Glu Thr Leu Gln Gln Ala Ser  
 50 55 60  
 Arg Val Ala Glu Ala Gly Asn Ser Ser Ile Gln Glu Gly Lys Glu Glu  
 65 70 75 80  
 Pro Gln Asn Tyr Thr Asp Ser Ser Ser Ser Ser Thr Glu Ser Ser Gln  
 85 90 95  
 Ser Ser Gln Asp Ser Gln Pro Val Val His Val Ile Ala Ser Arg Arg  
 100 105 110  
 Gln Asp Trp Ser Glu His Glu Ile Ala Met Glu Thr Ser Pro Thr Ile  
 115 120 125  
 Ile Tyr Gln Asp Val Ser Ser Glu Ser Gln Ser Ala Thr Ser Thr Ile  
 130 135 140  
 Lys Ala Leu Leu Glu Leu Gln Gln Thr Thr Val Lys Glu Lys Leu Glu  
 145 150 155 160  
 Ser Lys Pro Arg Gln Pro Thr Ile Asp Leu Ser Gln Met Ala Val Pro  
 165 170 175  
 Ile Gln Met Thr Gln Glu Lys Arg His Ser Pro Glu Ser Pro Ser Ile  
 180 185 190  
 Ala Val Val Glu Ser Glu Leu Val Ala Glu Tyr Ile Thr Thr Val Ser  
 195 200 205

His Arg Ser Gln Pro Gln Gln Pro Ser Gln Pro Gln Arg Thr Leu Leu  
 210 215 220  
 Gln His Val Ala Gln Ser Gln Thr Ala Thr Gln Thr Ser Val Val Val  
 225 230 235 240  
 Lys Ser Ile Pro Ala Ser Ser Pro Gly Ala Ile Thr His Ile Met Gln  
 245 250 255  
 Gln Ala Leu Ser Ser His Thr Ala Phe Thr Lys His Ser Glu Glu Leu  
 260 265 270  
 Gly Thr Glu Glu Gly Glu Val Glu Glu Met Asp Thr Leu Asp Pro Gln  
 275 280 285  
 Thr Gly Leu Phe Tyr Arg Ser Ala Leu Thr Gln Ser Gln Ser Ala Lys  
 290 295 300  
 Gln Gln Lys Leu Ser Gln Pro Pro Leu Glu Gln Thr Gln Leu Gln Val  
 305 310 315 320  
 Lys Thr Leu Gln Cys Phe Gln Thr Lys Gln Lys Gln Thr Ile His Leu  
 325 330 335  
 Gln Ala Asp Gln Leu Gln His Lys Leu Pro Gln Met Pro Gln Leu Ser  
 340 345 350  
 Ile Arg His Gln Lys Leu Thr Pro Leu Gln Gln Glu Gln Ala Gln Pro  
 355 360 365  
 Lys Pro Asp Val Gln His Thr Gln His Pro Met Val Ala Glu Asp Arg  
 370 375 380  
 Gln Leu Pro Thr Leu Met Ala Gln Pro Pro Gln Thr Val Val Gln Val  
 385 390 395 400  
 Leu Ala Val Lys Thr Thr Gln Gln Leu Pro Lys Leu Gln Gln Ala Pro  
 405 410 415  
 Asn Gln Pro Lys Ile Tyr Val Gln Pro Gln Thr Pro Gln Ser Gln Met  
 420 425 430  
 Ser Leu Pro Ala Ser Ser Glu Lys Gln Thr Ala Ser Gln Val Thr Glu

435

440

445

Tyr

&lt;210&gt; 3903

&lt;211&gt; 968

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3903

Met Arg Cys Pro Gly Pro Arg Leu Leu Glu Thr Ser Trp Arg His Pro

1

5

10

15

Pro Ala Pro Phe Thr Ser Thr Asn Arg His Leu Tyr Asp Phe Thr Gly

20

25

30

Asn Leu Asn Leu Asp Gly Lys Ser Leu Val Ala Leu Gly Pro Asp Gln

35

40

45

Ile Leu Leu Arg Gly Thr Gln Leu Arg Asn Thr Gln Trp Val Phe Gly

50

55

60

Ile Val Val Tyr Thr Gly His Asp Thr Lys Leu Met Gln Asn Ser Thr

65

70

75

80

Lys Ala Pro Leu Lys Arg Ser Asn Val Glu Lys Val Thr Asn Val Gln

85

90

95

Ile Leu Val Leu Phe Gly Ile Leu Leu Val Met Ala Leu Val Ser Ser

100

105

110

Ala Gly Ala Leu Tyr Trp Asn Arg Ser His Gly Glu Lys Asn Trp Tyr

115

120

125

Ile Lys Lys Met Asp Thr Thr Ser Asp Asn Phe Gly Tyr Asn Leu Leu

130

135

140

Thr Phe Ile Ile Leu Tyr Asn Asn Leu Ile Pro Ile Ser Leu Leu Val  
 145 150 155 160  
 Thr Leu Glu Val Val Lys Tyr Thr Gln Ala Leu Phe Ile Asn Trp Asp  
 165 170 175  
 Thr Asp Met Tyr Tyr Ile Gly Asn Asp Thr Pro Ala Met Ala Arg Thr  
 180 185 190  
 Ser Asn Leu Asn Glu Glu Leu Gly Gln Val Lys Tyr Leu Phe Ser Asp  
 195 200 205  
 Lys Thr Gly Thr Leu Thr Cys Asn Ile Met Asn Phe Lys Lys Cys Ser  
 210 215 220  
 Ile Ala Gly Val Thr Tyr Gly His Phe Pro Glu Leu Ala Arg Glu Pro  
 225 230 235 240  
 Ser Ser Asp Asp Phe Cys Arg Met Pro Pro Pro Cys Ser Asp Ser Cys  
 245 250 255  
 Asp Phe Asp Asp Pro Arg Leu Leu Lys Asn Ile Glu Asp Arg His Pro  
 260 265 270  
 Thr Ala Pro Cys Ile Gln Glu Phe Leu Thr Leu Leu Ala Val Cys His  
 275 280 285  
 Thr Val Val Pro Glu Lys Asp Gly Asp Asn Ile Ile Tyr Gln Ala Ser  
 290 295 300  
 Ser Pro Asp Glu Ala Ala Leu Val Lys Gly Ala Lys Lys Leu Gly Phe  
 305 310 315 320  
 Val Phe Thr Ala Arg Thr Pro Phe Ser Val Ile Ile Glu Ala Met Gly  
 325 330 335  
 Gln Glu Gln Thr Phe Gly Ile Leu Asn Val Leu Glu Phe Ser Ser Asp  
 340 345 350  
 Arg Lys Arg Met Ser Val Ile Val Arg Thr Pro Ser Gly Arg Leu Arg  
 355 360 365  
 Leu Tyr Cys Lys Gly Ala Asp Asn Val Ile Phe Glu Arg Leu Ser Lys



370 375 380  
Asp Ser Lys Tyr Met Glu Glu Thr Leu Cys His Leu Glu Tyr Phe Ala  
385 390 395 400  
Thr Glu Gly Phe Arg Thr Leu Cys Val Ala Tyr Ala Asp Leu Ser Glu  
405 410 415  
Asn Glu Tyr Glu Glu Trp Leu Lys Val Tyr Gln Glu Ala Ser Thr Ile  
420 425 430  
Leu Lys Asp Arg Ala Gln Arg Leu Glu Glu Cys Tyr Glu Ile Ile Glu  
435 440 445  
Lys Asn Leu Leu Leu Leu Gly Ala Thr Ala Ile Glu Asp Arg Leu Gln  
450 455 460  
Ala Gly Val Pro Glu Thr Ile Ala Thr Leu Leu Lys Ala Glu Ile Lys  
465 470 475 480  
Ile Trp Val Leu Thr Gly Asp Lys Gln Glu Thr Ala Ile Asn Ile Gly  
485 490 495  
Tyr Ser Cys Arg Leu Val Ser Gln Asn Met Ala Leu Ile Leu Leu Lys  
500 505 510  
Glu Asp Ser Leu Asp Ala Thr Arg Ala Ala Ile Thr Gln His Cys Thr  
515 520 525  
Asp Leu Gly Asn Leu Leu Gly Lys Glu Asn Asp Val Ala Leu Ile Ile  
530 535 540  
Asp Gly His Thr Leu Lys Tyr Ala Leu Ser Phe Glu Val Arg Arg Ser  
545 550 555 560  
Phe Leu Asp Leu Ala Leu Ser Cys Lys Ala Val Ile Cys Cys Arg Val  
565 570 575  
Ser Pro Leu Gln Lys Ser Glu Ile Val Asp Val Val Lys Lys Arg Val  
580 585 590  
Lys Ala Ile Thr Leu Ala Ile Gly Asp Gly Ala Asn Asp Val Gly Met  
595 600 605

Ile Gln Thr Ala His Val Gly Val Gly Ile Ser Gly Asn Glu Gly Met  
 610 615 620  
 Gln Ala Thr Asn Asn Ser Asp Tyr Ala Ile Ala Gln Phe Ser Tyr Leu  
 625 630 635 640  
 Glu Lys Leu Leu Leu Val His Gly Ala Trp Ser Tyr Asn Arg Val Thr  
 645 650 655  
 Lys Cys Ile Leu Tyr Cys Phe Tyr Lys Asn Val Val Leu Tyr Ile Ile  
 660 665 670  
 Glu Leu Trp Phe Ala Phe Val Asn Gly Phe Ser Gly Gln Ile Leu Phe  
 675 680 685  
 Glu Arg Trp Cys Ile Gly Leu Tyr Asn Val Ile Phe Thr Ala Leu Pro  
 690 695 700  
 Pro Phe Thr Leu Gly Ile Phe Glu Arg Ser Cys Thr Gln Glu Ser Met  
 705 710 715 720  
 Leu Arg Phe Pro Gln Leu Tyr Lys Ile Thr Gln Asn Gly Glu Gly Phe  
 725 730 735  
 Asn Thr Lys Val Phe Trp Gly His Cys Ile Asn Ala Leu Val His Ser  
 740 745 750  
 Leu Ile Leu Phe Trp Phe Pro Met Lys Ala Leu Glu His Asp Thr Val  
 755 760 765  
 Leu Thr Ser Gly His Ala Thr Asp Tyr Leu Phe Val Gly Asn Ile Val  
 770 775 780  
 Tyr Thr Tyr Val Val Val Thr Val Cys Leu Lys Ala Gly Leu Glu Thr  
 785 790 795 800  
 Thr Ala Trp Thr Lys Phe Ser His Leu Ala Val Trp Gly Ser Met Leu  
 805 810 815  
 Thr Trp Leu Val Phe Phe Gly Ile Tyr Ser Thr Ile Trp Pro Thr Ile  
 820 825 830  
 Pro Ile Ala Pro Asp Met Arg Gly Gln Ala Thr Met Val Leu Ser Ser

835                      840                      845  
 Ala His Phe Trp Leu Gly Leu Phe Leu Val Pro Thr Ala Cys Leu Ile  
 850                      855                      860  
 Glu Asp Val Ala Trp Arg Ala Ala Lys His Thr Cys Lys Lys Thr Leu  
 865                      870                      875                      880  
 Leu Glu Glu Val Gln Glu Leu Glu Thr Lys Ser Arg Val Leu Gly Lys  
 885                      890                      895  
 Ala Val Leu Arg Asp Ser Asn Gly Lys Arg Leu Asn Glu Arg Asp Arg  
 900                      905                      910  
 Leu Ile Lys Arg Leu Gly Arg Lys Thr Pro Pro Thr Leu Phe Arg Gly  
 915                      920                      925  
 Ser Ser Leu Gln Gln Gly Val Pro His Gly Tyr Ala Phe Ser Gln Glu  
 930                      935                      940  
 Glu His Gly Ala Val Ser Gln Glu Glu Val Ile Arg Ala Tyr Asp Thr  
 945                      950                      955                      960  
 Thr Lys Lys Lys Ser Arg Lys Lys  
 965

<210> 3904

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3904

Met Ile Pro Cys Gly Met Arg Phe Ile Gly Leu Ala Thr Val Leu Leu  
 1                      5                      10                      15  
 Lys Pro Leu Leu Lys Gln Pro Ser Glu Val Leu Phe Val Lys Asp Leu  
 20                      25                      30

Thr Leu Leu Asn His Ser Met Lys Pro Thr Asp Cys Thr Val Thr Leu  
 35 40 45  
 Gln Val Ala His Met Ser Asn Gln Asp Ile Glu Lys Thr Gly Ala Glu  
 50 55 60  
 Asp His Leu Gly Ile Thr Ala Arg Glu Ala Ala Ser Gln Lys Leu Met  
 65 70 75 80  
 Val Pro Gly Ser Thr Ala His Arg Ala Leu Ser Ser Lys Pro Gln His  
 85 90 95  
 Phe Gln Val Arg Val Lys Val Phe Glu Ala Arg Gln Leu Met Gly Asn  
 100 105 110  
 Asn Ile Lys Pro Val Val Lys Val Ser Ile Ala Gly Gln Gln His Gln  
 115 120 125  
 Thr Arg Ile Lys Met Gly Asn Asn Pro Phe Phe Asn Glu Val Gly  
 130 135 140

&lt;210&gt; 3905

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3905

Met Arg Val Gly Thr Trp Ile Cys Leu Pro Gly Arg Pro Gly Arg Cys  
 1 5 10 15  
 Arg Lys Gln His Asp Leu Gly Asn Cys Pro Glu Val Pro Gly Ile Phe  
 20 25 30  
 Lys Thr Leu Ala Leu Ser Pro Gly Ala Pro Asp Met Met Gln Gln Pro  
 35 40 45  
 Arg Val Glu Thr Asp Thr Ile Gly Ala Gly Glu Gly Pro Gln Gln Ala

50                      55                      60  
 Val Pro Trp Ser Ala Trp Val Thr Arg His Gly Trp Val Arg Trp Trp  
 65                      70                      75                      80  
 Val Ser His Met Pro Pro Ser Trp Ile Gln Trp Trp Ser Thr Ser Asn  
                          85                      90                      95  
 Trp Arg Gln Pro Leu Gln Arg Leu Leu Trp Gly Leu Glu Gly Ile Leu  
                          100                      105                      110  
 Tyr Leu Leu Leu Ala Leu Met Leu Cys His Ala Leu Phe Thr Thr Gly  
                          115                      120                      125  
 Ser His Leu Leu Ser Ser Leu Trp Pro Val Val Ala Ala Val Trp Arg  
                          130                      135                      140  
 His Leu Leu Pro Ala Leu Leu Leu Leu Val Leu Ser Ala Leu Pro Ala  
 145                      150                      155                      160  
 Leu Leu Phe Thr Ala Ser Phe Leu Leu Leu Phe Ser Thr Leu Leu Ser  
                          165                      170                      175  
 Leu Val Gly Leu Leu Thr Ser Met Thr His Pro Gly Asp Thr Gln Asp  
                          180                      185                      190  
 Leu Asp Gln  
                          195

&lt;210&gt; 3906

&lt;211&gt; 1116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3906

Met Glu Ser Pro Leu Ile Tyr Val Ser Val Leu Leu Leu Asn Ile Phe  
 1                      5                      10                      15

Glu Phe Ser Ser Gly Ile Val Tyr Asn Lys Asp Asp Thr Glu Lys Arg  
                     20                    25                    30  
 Phe Ala Cys Ser Asn Lys Gly Phe Pro Gln Glu Asn Glu Ile Ile Lys  
                     35                    40                    45  
 Leu Tyr Leu Phe Leu Glu Asn Leu Lys Ile Gln Cys Phe Phe Gln Thr  
                     50                    55                    60  
 Glu Asn Glu Ile Ala Ser Lys Ala Met Leu Ser Val Phe Thr Ser Gly  
                     65                    70                    75                    80  
 Gly Leu Ala Pro Ser Leu Gly Ile Met Asn Ser Thr Tyr Asn Gly Ile  
                                     85                    90                    95  
 Phe His Phe Asn Leu Thr Leu Phe Ser Asp Arg Ile Leu Trp Leu Val  
                     100                    105                    110  
 Asp Ile Pro Arg Glu Asn Ile Thr Gln Ser Thr Asp Ile Ala Ala Val  
                     115                    120                    125  
 Glu Glu Trp Leu Val Arg Ile Thr Leu His His Gly Leu Asn Ile Tyr  
                     130                    135                    140  
 Ala Thr Glu Gly Thr Leu Leu Asp Val Ile Arg Glu Pro Ile Leu Gln  
                     145                    150                    155                    160  
 Trp Thr Pro Gly Asp Val Ile Pro Glu Ser Glu Ile Ser Lys Leu Tyr  
                     165                    170                    175  
 Pro His Val Val Asp Leu Lys Val Thr Lys Cys Pro Cys Ala Asn Asp  
                     180                    185                    190  
 Val Ala Leu Leu Gly Phe Ile Val Asp Thr Ile Val Asp Gly Val Tyr  
                     195                    200                    205  
 Ile Gly Ile Thr Phe Gly Gly Phe Trp His Asp Tyr Asp Thr Thr Trp  
                     210                    215                    220  
 Phe Asn Met Thr Gln Thr Ile Tyr Ser Gln Leu Gln Glu Glu Tyr Glu  
                     225                    230                    235                    240  
 Asp Leu Ser Leu Val Asp Met Val Leu Thr Asn His Phe Leu Val Ile

	245		250		255
Leu Thr Ser Leu Gly Leu Phe Val Ser Glu Asp Leu Arg Tyr Pro Ser					
	260		265		270
Arg His Ser Leu Ser Phe Ser Arg Ala Asp Phe Cys Gly Phe Glu Arg					
	275		280		285
Val Asp Tyr Val Lys Gly Lys Leu Trp Tyr Asn Glu Arg Cys Phe Ala					
	290		295		300
Asn Arg Glu His Phe Glu Val Asp Tyr Val Thr Val Thr Phe Glu Arg					
305		310		315	320
Asn Arg Thr Leu Ser Glu Ser Ser Ser Cys Phe Tyr Ser Gln Glu Pro					
	325		330		335
Phe Leu Glu Trp Val Pro Cys Leu Pro His Ile Phe Lys Gly Ile Lys					
	340		345		350
Ile Phe Pro Thr Val Leu Thr Phe Leu Val Asp Gln Glu Arg Gly Thr					
	355		360		365
Gly Val Tyr Leu Phe Tyr Asn Lys Val Arg Lys Thr Ala Ile Ala Ser					
	370		375		380
Val Ser Thr Leu Arg Asn Asn Glu Pro Asn Ser Gln Ser Lys Phe Pro					
385		390		395	400
Ile Phe Arg Phe Pro Ser Ser Phe Ser Ser Pro Val Gly Met Val Phe					
	405		410		415
His Pro Arg Ser His Phe Leu Tyr Ala Tyr Gly Asn Gln Ile Trp Leu					
	420		425		430
Ser Val Asp Gly Gly Asn Thr Phe Gln Leu Ile Ala Asn Phe His Asp					
	435		440		445
Asp Ile Ile Lys Lys Thr Phe His Ser Phe Tyr Thr Ser Ala Ile Thr					
	450		455		460
Phe Val Ser Gln Arg Gly Lys Val Tyr Ser Thr Lys Ala Gly Met Gly					
465		470		475	480

Arg Tyr Ser Ala Val Gly Ser Val Thr Glu Arg Ile Phe Thr Leu Tyr  
485 490 495  
Tyr Asp His Leu Gly Phe Leu His Lys Leu Thr Leu Gly Arg Phe Glu  
500 505 510  
Ala Ser Gly Pro Pro Thr Ala Phe Gly Asn Ser Arg Asn Leu Phe Gly  
515 520 525  
Gln Pro Pro Asp Met Gly Phe Glu Thr Ala Leu Ala Pro Gln His Thr  
530 535 540  
Ser Leu Asp Glu Ile Ile Phe Phe Ala Tyr Val Pro Glu Asn Glu Pro  
545 550 555 560  
Gln Glu Thr Ile Tyr Ser Lys Lys Phe Gly Asn Ile His Tyr Gly Lys  
565 570 575  
Val Ile His Ser Gly Lys Thr Gly Arg Ala Tyr Ile Arg Lys Val Leu  
580 585 590  
Gln His Thr Thr Pro Lys Gly Phe Leu Ser Ser Val Ile Ala Glu Met  
595 600 605  
Lys Glu Pro Phe Gly Leu Glu Glu Val Asn Glu Ser Ser Cys Leu Ser  
610 615 620  
Ser Ser Leu Leu Ile Asn Lys Ala Gly Asn Val Tyr Lys Leu Thr Leu  
625 630 635 640  
Asp Ser Gln Val Val Gln Ala Leu Phe Glu Asp Thr Asp Ile Glu Lys  
645 650 655  
Thr Val Val Leu Pro Gly Tyr Ser Ser Phe Leu Ile Thr Ser Ile Leu  
660 665 670  
Asp Asn Lys Asn Ala Leu Ala Ile Ala Thr Met Pro Glu Ser Ala Pro  
675 680 685  
Asn Asn Met Thr Phe Leu Lys Ser Thr Trp Phe Leu Tyr Asn Phe Gly  
690 695 700  
Gln Arg Asn Gly Arg Thr Trp Lys Ile Tyr Ser Lys Pro Cys Asn Tyr



705                      710                      715                      720  
Trp Phe Gln His Asp Asp Ser Pro Ser Leu Asn Ile Val Lys Tyr Ile  
725                      730                      735  
Asp Leu Gly Asn Ser Tyr Val Leu Lys Ala Lys Val Ile Arg Asn Ala  
740                      745                      750  
Lys Gly Phe Arg Met Leu Glu Ile Pro Leu Leu Thr Val Phe Val Gly  
755                      760                      765  
Asn Pro Asn Leu Leu Glu Val Thr Ala Glu Val Thr Phe Asp Asp Thr  
770                      775                      780  
Asp Ser Tyr Val Ile Thr Ile Ser Ala Ala Ser Lys Val Leu His Gln  
785                      790                      795                      800  
Gly Ser Thr Ser Leu Ala Phe Ile Met Trp Ser Ala Ser Thr Glu Cys  
805                      810                      815  
Phe Val Thr Thr Met Val Pro Thr Leu Lys Ser Ser Cys Ser Tyr Leu  
820                      825                      830  
Arg Ser Met His His Ile Pro Ser Lys Phe Ile Pro Phe Glu Asp Trp  
835                      840                      845  
Ile Ser Gly Val His Lys Asp Ser Gln Gly Phe Asn Leu Ile Lys Thr  
850                      855                      860  
Leu Pro Ile Asn Tyr Arg Pro Pro Ser Asn Met Gly Ile Ala Ile Pro  
865                      870                      875                      880  
Leu Thr Asp Asn Phe Tyr His Ala Asp Pro Ser Lys Pro Ile Pro Arg  
885                      890                      895  
Asn Met Phe His Met Ser Lys Lys Thr Gly Lys Phe Lys Gln Cys Ala  
900                      905                      910  
Asn Val Ser Thr Arg Glu Glu Cys Asn Cys Thr Lys Asp Gln Lys Phe  
915                      920                      925  
Ser His Ala Val Ala Phe Ser Asp Cys Arg Glu Lys Val Pro Arg Phe  
930                      935                      940

Lys Phe Pro Ile Thr Gln Tyr Pro Val Ser Leu Glu Ile Ile Asn Glu  
945 950 955 960  
Asp Gly Arg Val Pro Leu Gln Ser Pro Tyr Leu Val Thr Val Thr Glu  
965 970 975  
Val Asn Met Arg His Asn Trp Lys Leu Lys His Thr Val Pro Glu Asn  
980 985 990  
Ile Lys Arg Met Lys Gln Leu Val Glu Pro Ile Leu Gly Ala Ala Val  
995 1000 1005  
Tyr Asn Pro Ser Gly Leu Asn Leu Ser Ile Lys Gly Ser Glu Leu Phe  
1010 1015 1020  
His Phe Arg Val Thr Val Ile Ser Gly Val Thr Phe Cys Asn Leu Ile  
1025 1030 1035 1040  
Glu Glu Phe Gln Ile Tyr Val Asp Gly Ala Pro Leu Pro Phe Pro Gly  
1045 1050 1055  
His Thr Leu Ile Ala Val Ala Thr Ala Val Val Leu Gly Gly Leu Ile  
1060 1065 1070  
Phe Ile Ala Phe Met Phe Gln Leu Gln Gly Ile His Pro Trp Arg Thr  
1075 1080 1085  
Phe Gln Arg Trp Ile Arg Arg Asn Gln Glu Lys Phe Ser Ser Ile Ser  
1090 1095 1100  
Leu Ser Glu Leu Ile His Arg Ser Lys Ser Glu Glu  
1105 1110 1115

&lt;210&gt; 3907

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3907

Met Arg His Arg Glu Gly Ser Trp Glu Pro Trp Ser Arg Pro Val Gly  
 1 5 10 15  
 Glu Pro Pro Glu Ala Gly Trp Asp Tyr Thr Gln Trp Lys Gln Glu Arg  
 20 25 30  
 Glu Gln Ile Asp Leu Ala Arg Leu Ala Arg His Arg Asp Ala Gln Gly  
 35 40 45  
 Asp Trp Arg Arg Pro Trp Asp Leu Asp Lys Ala Lys Ser Thr Leu Gln  
 50 55 60  
 Asp Cys Ser Gln Leu Arg Gly Glu Gly Pro Ala Arg Ala Gly Ser Arg  
 65 70 75 80  
 Arg Gly Pro Arg Ser His Gln Lys Leu Gln Pro Pro Pro Leu Leu Pro  
 85 90 95  
 Asp Gly Lys Gly Arg Gly Gly Gln Ala Asn Arg Pro Ser Val Ala Pro  
 100 105 110  
 Ala Thr Gly Ser Lys Ala Arg Gly Lys Glu Arg Leu Thr Gly Arg Ala  
 115 120 125  
 Arg Arg Trp Asp Met Lys Glu Asp Lys Glu Glu Leu Glu Gly Gln Glu  
 130 135 140  
 Gly Ser Gln Ser Thr Arg Glu Thr Pro Ser Glu Glu Glu Gln Ala Gln  
 145 150 155 160  
 Lys Gln Ser Gly Met Glu Gln Gly Arg Leu Gly Ser Ala Pro Ala Ala  
 165 170 175  
 Ser Pro Ala Leu Ala Ser Pro Glu Gly Pro Lys Gly Glu Ser Val Ala  
 180 185 190  
 Ser Thr Ala Ser Ser Val Pro Cys Ser Pro Gln Glu Pro Asp Leu Ala  
 195 200 205  
 Pro Leu Asp Leu Ser Leu Gly Gly Ala Gly Ile Pro Gly Pro Arg Glu  
 210 215 220

出証特 2 0 0 4 - 3 0 5 9 6 6 0

出証特 2 0 0 4 - 3 0 5 9 6 6 0

Val Lys Phe Leu Ser Lys Leu Leu Ser Ile Phe Pro Lys Val His Lys  
290 295 300  
Glu Arg Thr Lys Ser Leu Glu Thr Asp Met Gln Lys Ile Thr Ser Lys  
305 310 315 320  
Val Leu Asn Ser Val Gln Glu Phe Ile Ser Lys Ser Lys Ile Lys Leu  
325 330 335  
Val Pro Pro Thr Lys Glu Ser Pro Thr Val Pro Val Ala Asp Asn Ala  
340 345 350  
Thr Ile Glu Asn Ile Val Asn Ser Ile Tyr Thr Ser Val Leu Lys His  
355 360 365  
Ser Gly Ser Tyr Thr Ser Val Phe Lys Asp Leu Met Gly Lys Ser Asn  
370 375 380  
Val Leu Ser Asp Thr Ile Gly Phe Leu Met Val Asn Ala Ile Ser Asn  
385 390 395 400  
Ser Glu Phe Gln Pro Gln Val Glu Glu Glu Val Ser Asn Ser Glu Leu  
405 410 415  
Val Leu Glu Ala Val Lys Ile Met Glu Lys Val Ile Lys Ile Ile Asp  
420 425 430  
Glu Leu Lys Ser Lys Glu Lys Ser Ser Ser Arg Lys Gly Leu Thr Leu  
435 440 445  
Asp Ala Lys Leu Leu Glu Glu Val Leu Ala Leu Phe Leu Ala Lys Leu  
450 455 460  
Ile Arg Leu Pro Ser Ser Ser Ser Lys Asp Glu Lys Asn Leu Ser Lys  
465 470 475 480  
Thr Glu Leu Asn Lys Ile Ala Ser Gln Leu Ser Lys Leu Val Thr Ala  
485 490 495  
Glu Ile Ser Arg Ser Ser Ile Ser Leu Ile Ala Ser Asp Pro Glu Glu  
500 505 510  
His Cys Leu Asn Pro Glu Asn Thr Glu Arg Ile Tyr Gln Val Val Asp

515 520 525  
Ser Val Tyr Ser Asn Ile Leu Gln Gln Ser Gly Thr Asn Lys Glu Phe  
530 535 540  
Tyr Tyr Asp Ile Lys Asp Thr Asn Thr Ala Phe Pro Lys Lys Val Ala  
545 550 555 560  
Ser Leu Ile Ile Asp Gly Val Ser Ser Phe Pro Leu Asp Thr Ile Asn  
565 570 575  
Ser Thr Ile Ser Asn Ala Asp Leu Ser Gly Glu Leu Asp Val Asn Arg  
580 585 590  
Ile Val Gln Lys Ala Gln Glu His Ala Phe Asn Val Ile Pro Glu Leu  
595 600 605  
Glu Gln Glu Lys Leu Asp Gln Asn Leu Ser Glu Glu Glu Ser Pro Ile  
610 615 620  
Lys Ile Val Pro His Val Gly Lys Lys Pro Val Lys Ile Asp Pro Lys  
625 630 635 640  
Ile Ile Ser Glu His Leu Ala Val Ile Ser Ile Lys Thr Gln Pro Leu  
645 650 655  
Glu Lys Leu Lys Gln Glu Cys Leu Lys Arg Thr Gly His Ser Ile Ala  
660 665 670  
Glu Leu Arg Arg Ala Ser Ile Ser Gly Arg Asn Tyr Ser Leu Gly Ser  
675 680 685  
Pro Asp Leu Glu Lys Arg Lys Thr Glu Arg Arg Thr Ser Leu Asp Lys  
690 695 700  
Thr Gly Arg Leu Asp Val Lys Pro Leu Glu Ala Val Ala Arg Asn Ser  
705 710 715 720  
Phe Gln Asn Ile Arg Lys Pro Asp Ile Thr Lys Val Glu Leu Leu Lys  
725 730 735  
Asp Val Gln Ser Lys Asn Asp Leu Ile Val Arg Leu Glu Ala His Asp  
740 745 750

Ile Asp Gln Val Tyr Leu Glu Asn Tyr Ile Lys Glu Glu Arg Asp Ser  
755 760 765  
Asp Glu Asp Glu Val Val Leu Thr Gln Thr Phe Ala Lys Glu Glu Gly  
770 775 780  
Ile Lys Val Phe Glu Asp Gln Val Lys Glu Val Lys Lys Pro Ile Gln  
785 790 795 800  
Ser Lys Leu Ser Pro Lys Ser Thr Leu Ser Thr Ser Ser Leu Lys Lys  
805 810 815  
Phe Leu Ser Leu Ser Lys Cys Cys Gln Thr Thr Ala Ser Ala Asn Ile  
820 825 830  
Glu Ser Thr Glu Ala Ile Ser Asn Gln Val Ile Glu Ser Lys Glu Thr  
835 840 845  
His Val Lys Arg Ala Val Ala Glu Leu Asp Met Ala Thr Pro Lys Thr  
850 855 860  
Met Pro Glu Thr Ala Ser Ser Ser Trp Glu Glu Lys Pro Gln Cys Lys  
865 870 875 880  
Lys Glu Glu Lys Asn Leu Val Thr Glu Pro Thr His Tyr Phe Ile His  
885 890 895  
Arg Ile Met Ser Ser Ser Ser Tyr Asn Gln Glu Asp Leu Ile Ser Ser  
900 905 910  
Thr Gly Glu Ala Glu Asp Cys His Ser Asp Pro Ser Ala Lys Ile Leu  
915 920 925  
Glu Glu Ser Ser Gln Glu Gln Lys Pro Glu His Gly Asn Ser Val Lys  
930 935 940  
Phe Ile Thr Ile Phe Glu Arg Ser Lys Asp Val Leu Gly Ser Ala Asn  
945 950 955 960  
Pro Ser Lys Glu Val Ile Ser Glu Thr Pro Lys Pro Asp Val Ser Lys  
965 970 975  
Gln Gly Ser Lys Met Leu Thr Lys Met Ser Ser Ala Leu Ser Lys Val



出証特 2 0 0 4 - 3 0 5 9 6 6 0

Ser Thr Lys Asp Leu Lys Glu Asp Trp Ser Val Thr Thr Pro Val Lys

130

135

140

Glu Val Lys Pro Gly Glu Lys Arg Asp Glu Lys Cys Pro Glu Leu Lys

145

150

155

160

Gln Glu Met Glu Thr Leu Leu Ser Glu Ala Ile Arg Leu Ile Lys Ser

165

170

175

Leu Glu Thr Asp Arg Ala Asp Ala Glu Glu Ala Leu Lys Gln Gln Arg

180

185

190

Ser Arg Lys Asn Met Ile Asn Met Lys Ile Asp Ser Trp Ser Val Trp

195

200

205

Lys Leu Gln Glu Leu Pro Leu Ala Val Gln Lys Glu His Glu Ala Tyr

210

215

220

Leu Ser Asp Val Ile Glu Leu Gln Trp His Leu Glu Asp Lys Ala Asn

225

230

235

240

Gln Leu Gln His Phe Glu Lys Gln Lys Thr Glu Leu Glu Glu Ala Asn

245

250

255

Ala Lys Ile Gln Ala Asp Ile Asp Tyr Met Asn Glu His Gly Pro Leu

260

265

270

Leu Asp Ser Lys Gln Asn Gln Glu Leu Gln Asp Leu Lys Asn His Tyr

275

280

285

Lys Lys Lys Met Glu Val Met Asp Leu His Arg Lys Val Asn Glu Glu

290

295

300

Leu Glu Glu Ala Leu Glu Ala Cys Glu Asn Ala Arg Leu Lys Ala Gln

305

310

315

320

Gln Ile Lys Glu Glu Ile Asp Lys Asp Ile Tyr Gln Asp Glu Lys Thr

325

330

335

Ile Glu Ala Tyr Lys Arg Glu Ile Tyr Gln Leu Asn Ser Leu Phe Asp

340

345

350

His Tyr Ser Ser Ser Val Ile Asn Val Asn Thr Asn Ile Glu Glu Glu

355 360 365  
Glu Glu Glu Val Thr Glu Ala Ile Arg Glu Thr Lys Ser Ser Lys Asn  
370 375 380  
Glu Leu His Ser Leu Ser Lys Met Leu Glu Asp Leu Arg Arg Val Tyr  
385 390 395 400  
Asp Gln Leu Thr Trp Lys Gln Lys Ser His Glu Asn Gln Tyr Leu Glu  
405 410 415  
Ala Val Asn Asp Phe Tyr Ala Ala Lys Lys Thr Trp Asp Ile Glu Leu  
420 425 430  
Ser Asp Val Ala Lys Asp Phe Ser Ala Ile Ser Leu Ala Cys Thr Lys  
435 440 445  
Leu Thr Glu Asp Asn Lys Lys Leu Glu Ile Asp Ile Asn Lys Ile Thr  
450 455 460  
Glu Lys Thr Asn Glu Ser Ile Arg Lys Lys Ser Lys Tyr Glu Ser Glu  
465 470 475 480  
Ile Lys Tyr Leu Thr Ile Met Lys Leu Lys Asn Asp Lys His Leu Lys  
485 490 495  
Asn Ile Tyr Lys Glu Ala Tyr Arg Ile Gly Thr Leu Phe His Leu Thr  
500 505 510  
Lys His Lys Thr Asp Glu Met Glu Asp Lys Ile Ala Glu Val Arg Arg  
515 520 525  
Lys Phe Lys Gly Arg Glu Glu Phe Leu Lys Lys Leu Thr Gln Gly Glu  
530 535 540  
Val Ala Ala Gly Met Val Leu Gln Lys Lys Leu Tyr Ser Ile Tyr Glu  
545 550 555 560  
Val Gln Ala Leu Glu Arg Lys Glu Leu Ile Lys Asn Arg Ala Ile Cys  
565 570 575  
Ala Met Ser Leu Ala Glu Leu Gln Glu Pro Leu Leu Gln Leu Glu Asp  
580 585 590

Glu Ala Glu Arg Ile Arg Ser Leu Asn Lys Glu His Ser Val Ser Lys  
595 600 605

Arg Ser Ala Ile Phe Lys Asp Leu Glu Ala Thr Lys Ser Lys Thr Met  
610 615 620

Ile Phe Tyr Ala Lys Ile Asn Glu Leu Asn Glu Glu Leu Lys Ala Lys  
625 630 635 640

Glu Glu Glu Lys Lys Ser Phe Asp Gln Thr Leu Glu Ile Leu Lys Asn  
645 650 655

Lys Phe Ile Thr Met Arg Phe Lys Arg Glu His Ala Gln Thr Val Phe  
660 665 670

Asp His Tyr Met Gln Glu Lys Lys Asp Cys Glu Glu Arg Ile Phe Glu  
675 680 685

Glu Asp Gln Arg Phe Arg Val Leu Leu Ala Val Arg Gln Lys Thr Leu  
690 695 700

Gln Asp Thr Gln Lys Ile Ile Ala Asp Ser Leu Glu Glu Asn Leu Arg  
705 710 715 720

Leu Ala Gln Glu Tyr Gln Gln Leu Gln Phe Thr Phe Leu Lys Glu Lys  
725 730 735

Asp Asn Tyr Phe Asn Ile Tyr Asp Lys Gln Leu Ser Leu Asp Thr Ser  
740 745 750

Ile Arg Asp Lys Lys Gln Leu Cys Gln Leu Gln Arg Arg Met His Thr  
755 760 765

Leu Trp Gln Glu His Phe Lys Leu Val Val Leu Phe Ser Gln Met Arg  
770 775 780

Leu Ala Asn Phe Gln Thr Asp Ser Gln Glu Ser Ile Gln Lys Ile Leu  
785 790 795 800

Ala Val Gln Glu Glu Ser Ser Asn Leu Met Gln His Ile Leu Gly Phe  
805 810 815

Phe Gln Thr Leu Thr Asp Gly Thr Cys Glu Asn Asp Gly

820

825

&lt;210&gt; 3910

&lt;211&gt; 214

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3910

Met Ala Ala Leu Cys Leu Arg Lys Gly Pro Leu Pro Leu Cys Pro Arg

1 5 10 15

Pro Ser His Gly Leu Lys Ala Met Gly Gly Glu Gly Ser Cys Gln Asp

20 25 30

Asp Thr Glu Ser Gly Ala Leu Thr Phe Leu Pro Ser Asp Asp Ala Gln

35 40 45

Pro Gly Lys Ala Leu Arg Pro Gln Arg Ser Gly Pro Gly Gly Ser Glu

50 55 60

Arg Arg Gly Arg Gly Trp Gly Arg Ala Gly Ala Leu Glu Glu Gln Val

65 70 75 80

Arg Gln Gly Pro Ser Ala Gln Gly His Pro Arg Thr Gln Ala Arg Ser

85 90 95

Arg Pro Cys Ser Ala Arg Pro His Cys Ser Cys Gly Lys Gly Lys His

100 105 110

Gly Ala Leu Pro Gln Gly Gln Cys Ser Ala Trp Leu Glu Leu Met Thr

115 120 125

Val Thr Val Pro Cys Cys His His Cys Ser His Cys Pro Gly Gly Gln

130 135 140

Pro Gly Pro Gln Leu His Arg Ala Trp Thr Val Trp Ser Trp Ala Val

145 150 155 160

Pro Ser Ser Ala Ser Arg Ala Cys Gly Asp Gly His Arg Arg Ser Thr  
                     165                    170                    175  
 Cys Gln Ala Gln Gly Ser Cys Thr Gly Leu Pro Pro Leu Arg Gly Cys  
                     180                    185                    190  
 Leu Pro Arg Leu Val Pro Gly Arg Pro Cys Pro His Leu Arg Gln Gln  
                     195                    200                    205  
 Asp Lys Gly Lys Trp Asn  
                     210

<210> 3911

<211> 950

<212> PRT

<213> Homo sapiens

<400> 3911

Met Glu Asp Lys Leu His Lys Arg Ser Pro Pro Pro Glu Thr Ile Lys  
           1                    5                    10                    15  
 Ser Lys Leu Asn Thr Ser Val Asp Thr His Lys Ile Lys Ser Ser Pro  
                     20                    25                    30  
 Ser Pro Glu Val Val Lys Pro Lys Ile Thr His Ser Pro Asp Ser Val  
                     35                    40                    45  
 Lys Ser Lys Ala Thr Tyr Val Asn Ser Gln Ala Thr Gly Glu Arg Arg  
           50                    55                    60  
 Leu Ala Asn Lys Ile Glu His Glu Leu Ser Arg Cys Ser Phe His Pro  
           65                    70                    75                    80  
 Ile Pro Thr Arg Ser Ser Thr Leu Glu Thr Thr Lys Ser Pro Leu Ile  
                     85                    90                    95  
 Ile Asp Lys Asn Glu His Phe Thr Val Tyr Arg Asp Pro Ala Leu Ile

100 105 110  
Gly Ser Glu Thr Gly Ala Asn His Ile Ser Pro Phe Leu Ser Gln His  
115 120 125  
Pro Phe Pro Leu His Ser Ser Ser His Arg Thr Cys Leu Asn Pro Gly  
130 135 140  
Thr His His Pro Ala Leu Thr Pro Ala Pro His Leu Leu Ala Gly Ser  
145 150 155 160  
Ser Ser Gln Thr Pro Leu Pro Thr Ile Asn Thr His Pro Leu Thr Ser  
165 170 175  
Gly Pro His His Ala Val His His Pro His Leu Leu Pro Thr Val Leu  
180 185 190  
Pro Gly Val Pro Thr Ala Ser Leu Leu Gly Gly His Pro Arg Leu Glu  
195 200 205  
Ser Ala His Ala Ser Ser Leu Ser His Leu Ala Leu Ala His Gln Gln  
210 215 220  
Gln Gln Gln Leu Leu Gln His Gln Ser Pro His Leu Leu Gly Gln Ala  
225 230 235 240  
His Pro Ser Ala Ser Tyr Asn Gln Leu Gly Leu Tyr Pro Ile Ile Trp  
245 250 255  
Gln Tyr Pro Asn Gly Thr His Ala Tyr Ser Gly Leu Gly Leu Pro Ser  
260 265 270  
Ser Lys Trp Val His Pro Glu Asn Ala Val Asn Ala Glu Ala Ser Leu  
275 280 285  
Arg Arg Asn Ser Pro Ser Pro Trp Leu His Gln Pro Thr Pro Val Thr  
290 295 300  
Ser Ala Asp Gly Ile Gly Leu Leu Ser His Ile Pro Val Arg Pro Ser  
305 310 315 320  
Ser Ala Glu Pro His Arg Pro Leu Lys Ile Thr Ala His Ser Ser Pro  
325 330 335

Pro Leu Thr Lys Thr Leu Val Asp His His Lys Glu Glu Leu Glu Arg  
340 345 350  
Lys Ala Phe Met Glu Pro Leu Arg Ser Val Ala Ser Thr Ser Ala Lys  
355 360 365  
Asn Asp Leu Asp Leu Asn Arg Ser Gln Thr Gly Lys Asp Cys His Leu  
370 375 380  
His Arg His Phe Val Asp Pro Val Leu Asn Gln Leu Gln Arg Pro Pro  
385 390 395 400  
Gln Glu Thr Gly Glu Arg Leu Asn Lys Tyr Lys Glu Glu His Arg Arg  
405 410 415  
Ile Leu Gln Glu Ser Ile Asp Val Ala Pro Phe Thr Thr Lys Ile Lys  
420 425 430  
Gly Leu Glu Gly Glu Arg Glu Asn Tyr Ser Arg Val Ala Ser Ser Ser  
435 440 445  
Ser Ser Pro Lys Ser His Ile Ile Lys Gln Asp Met Asp Val Glu Arg  
450 455 460  
Ser Val Ser Asp Leu Tyr Lys Met Lys His Ser Val Pro Gln Ser Leu  
465 470 475 480  
Pro Gln Ser Asn Tyr Phe Thr Thr Leu Ser Asn Ser Val Val Asn Glu  
485 490 495  
Pro Pro Arg Ser Tyr Pro Ser Lys Glu Val Ser Asn Ile Tyr Gly Asp  
500 505 510  
Lys Gln Ser Asn Ala Leu Ala Ala Ala Ala Ala Asn Pro Gln Thr Leu  
515 520 525  
Thr Ser Phe Ile Thr Ser Leu Ser Lys Pro Pro Pro Leu Ile Lys His  
530 535 540  
Gln Pro Glu Ser Glu Gly Leu Val Gly Lys Ile Pro Glu His Leu Pro  
545 550 555 560  
His Gln Ile Ala Ser His Ser Val Thr Thr Phe Arg Asn Asp Cys Arg



565	570	575
Ser Pro Thr His Leu Thr Val Ser Ser Thr Asn Thr Leu Arg Ser Met		
580	585	590
Pro Ala Leu His Arg Ala Pro Val Phe His Pro Pro Ile His His Ser		
595	600	605
Leu Glu Arg Lys Glu Gly Ser Tyr Ser Ser Leu Ser Pro Pro Thr Leu		
610	615	620
Thr Pro Val Met Pro Val Asn Ala Gly Gly Lys Val Gln Glu Ser Gln		
625	630	635
Lys Pro Pro Thr Leu Ile Pro Glu Pro Lys Asp Ser Gln Ala Asn Phe		
645	650	655
Lys Ser Ser Ser Glu Gln Ser Leu Thr Glu Met Trp Arg Pro Asn Asn		
660	665	670
Asn Leu Ser Lys Glu Lys Thr Glu Trp His Val Glu Lys Ser Ser Gly		
675	680	685
Lys Leu Gln Ala Ala Met Ala Ser Val Ile Val Arg Pro Ser Ser Ser		
690	695	700
Thr Lys Thr Asp Ser Met Pro Ala Met Gln Leu Ala Ser Lys Asp Arg		
705	710	715
Val Ser Glu Arg Ser Ser Ala Gly Ala His Lys Thr Asp Cys Leu Lys		
725	730	735
Leu Ala Glu Ala Gly Glu Thr Gly Arg Ile Ile Leu Pro Asn Val Asn		
740	745	750
Ser Asp Ser Val His Thr Lys Ser Glu Lys Asn Phe Gln Ala Val Ser		
755	760	765
Gln Gly Ser Val Pro Ser Ser Val Met Ser Ala Val Asn Thr Met Cys		
770	775	780
Asn Thr Lys Thr Asp Val Ile Thr Ser Ala Ala Asp Thr Thr Ser Val		
785	790	795
		800

Ala Trp Leu Thr Arg His  
945 950

Met Ile Ser Val His Cys Asn Leu Cys Leu Pro Gly Ser Ser Asn Phe

1	5	10	15												
Cys	Ala	Ser	Ala	Ser	Arg	Val	Ala	Gly	Ile	Thr	Gly	Met	His	His	His
	20		25		30										
Val	Trp	Leu	Ile	Phe	Val	Phe	Leu	Val	Glu	Thr	Gly	Phe	His	His	Val
	35		40		45										
Gly	Gln	Ala	Gly	Leu	Lys	Leu	Gln	Ala	Ser	Ser	Asp	Leu	Ser	Ala	Phe
	50		55		60										
Gln	Ser	Ala	Gly	Ile	Thr	Gly	Gly	Ser	Gln	Cys	Ile	Leu	Pro	Ala	Asp
	65		70		75										
Phe	Val	Phe	Cys	Cys	Cys	Cys	Phe	Phe	Val	Phe	Cys	Phe	Ser	Phe	Leu
	85		90		95										
Ala	Leu	Leu	Gly	Ser	Leu	His	Val	Arg	Leu	Ser	Phe	Ile	Val	Cys	Phe
	100		105		110										

&lt;210&gt; 3913

&lt;211&gt; 265

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3913

Met	Arg	Asp	Leu	Gly	Glu	Asn	Thr	Ala	Ser	Arg	Arg	Asn	Ala	Pro	Ala
1	5		10		15										
His	Pro	Ser	Arg	Asn	Pro	His	His	Leu	Pro	Pro	Thr	Pro	Asp	Gln	Ser
	20		25		30										
Ser	Arg	Arg	Pro	Gly	Val	Ser	His	Gln	Arg	Ala	Glu	Arg	Ala	Phe	Glu
	35		40		45										
Leu	Leu	Leu	His	His	Asp	Gln	Asp	Ala	Leu	Gly	His	Leu	Val	His	Val
	50		55		60										

Cys Val His Gln Ser Cys Ser Glu Ser Pro Gln Gly Leu Phe His Asp  
 65 70 75 80  
 Ala His Pro Gly Val Thr Leu Thr Leu Gly Gln Glu Glu Lys Ala Cys  
 85 90 95  
 Pro Glu Asp Ser Ala Ser Ser Ser Ser Ser Leu Pro Ala Pro Ser Val  
 100 105 110  
 Leu Gly Ala His Thr Gly Val Gly Pro Gln Ala Gly Gly His Val Pro  
 115 120 125  
 Gly Trp Gln Asp Leu Ser Thr Val Lys Leu Asp Ala Pro Ala Gly Pro  
 130 135 140  
 Val Leu Pro Ala Arg Ile Pro Leu Pro Gln Asp Ala Leu His Thr Leu  
 145 150 155 160  
 Arg Ile Pro Ser Arg Cys Ser Gly Ala Cys Thr Glu Gly Leu Gly Pro  
 165 170 175  
 Ala Pro Gly Asn Ser Lys Glu Ala Asn Gly Phe Met Ser Arg Phe Cys  
 180 185 190  
 Gln Ile Ala Ser Glu Ala Ala Leu Phe Ala Val Ala Ala Glu Cys Arg  
 195 200 205  
 Ala Gly His Leu Ser Gly Gln Ser Gly Ala Leu Leu Pro Cys Ile Ser  
 210 215 220  
 Trp Ala Met Arg Gly Asp Leu Cys Pro Leu His Arg Ser Cys Val Pro  
 225 230 235 240  
 Cys Ala Cys Asp Arg Val Phe Pro Val Tyr Ser Met Leu Leu His Val  
 245 250 255  
 Phe Gln Phe Arg Phe Val Val Cys Glu  
 260 265

&lt;210&gt; 3914

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3914

Met Ser Thr Val Gly Leu Phe His Phe Pro Thr Pro Leu Thr Arg Ile

1 5 10 15

Cys Pro Ala Pro Trp Gly Leu Arg Leu Trp Glu Lys Leu Thr Leu Leu

20 25 30

Ser Pro Gly Ile Ala Val Thr Pro Val Gln Met Ala Gly Lys Lys Asp

35 40 45

Tyr Pro Ala Leu Leu Ser Leu Asp Glu Asn Glu Leu Glu Glu Gln Phe

50 55 60

Val Lys Gly His Gly Pro Gly Gly Gln Ala Thr Asn Lys Thr Ser Asn

65 70 75 80

Cys Val Val Leu Lys His Ile Pro Ser Gly Ile Val Val Lys Cys His

85 90 95

Gln Thr Arg Ser Val Asp Gln Asn Arg Lys Leu Ala Arg Lys Ile Leu

100 105 110

Gln Glu Lys Val Asp Val Phe Tyr Asn Gly Glu Asn Ser Pro Val His

115 120 125

Lys Glu Lys Arg Glu Ala Ala Lys Lys Lys

130 135

&lt;210&gt; 3915

&lt;211&gt; 297

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3915

Met Tyr Ile Ser Pro Pro Lys Asp Trp Trp Asp Ala Gly Asp Pro Ser  
 1 5 10 15  
 Leu Pro Ile Arg Thr Pro Ala Met Ile Gly Cys Ser Phe Val Val Asn  
 20 25 30  
 Arg Lys Phe Phe Gly Glu Ile Gly Leu Leu Asp Pro Gly Met Asp Val  
 35 40 45  
 Tyr Gly Gly Glu Asn Ile Glu Leu Gly Ile Lys Val Trp Leu Cys Gly  
 50 55 60  
 Gly Ser Met Glu Val Leu Pro Cys Ser Arg Val Ala His Ile Glu Arg  
 65 70 75 80  
 Lys Lys Lys Pro Tyr Asn Ser Asn Ile Gly Phe Tyr Thr Lys Arg Asn  
 85 90 95  
 Ala Leu Arg Val Ala Glu Val Trp Met Asp Asp Tyr Lys Ser His Val  
 100 105 110  
 Tyr Ile Ala Trp Asn Leu Pro Leu Glu Asn Pro Gly Ile Asp Ile Gly  
 115 120 125  
 Asp Val Ser Glu Arg Arg Ala Leu Arg Lys Ser Leu Lys Cys Lys Asn  
 130 135 140  
 Phe Gln Trp Tyr Leu Asp His Val Tyr Pro Glu Met Arg Arg Tyr Asn  
 145 150 155 160  
 Asn Thr Val Ala Tyr Gly Glu Leu Arg Asn Asn Lys Ala Lys Asp Val  
 165 170 175  
 Cys Leu Asp Gln Gly Pro Leu Glu Asn His Thr Ala Ile Leu Tyr Pro  
 180 185 190  
 Cys His Gly Trp Gly Pro Gln Leu Ala Arg Tyr Thr Lys Glu Gly Phe  
 195 200 205  
 Leu His Leu Gly Ala Leu Gly Thr Thr Thr Leu Leu Pro Asp Thr Arg

210	215	220
Cys Leu Val Asp Asn Ser Lys Ser Arg Leu Pro Gln Leu Leu Asp Cys		
225	230	235
Asp Lys Val Lys Ser Ser Leu Tyr Lys Arg Trp Asn Phe Ile Gln Asn		
245	250	255
Gly Ala Ile Met Asn Lys Gly Thr Gly Arg Cys Leu Glu Val Glu Asn		
260	265	270
Arg Gly Leu Ala Gly Ile Asp Leu Ile Leu Arg Ser Cys Thr Gly Gln		
275	280	285
Arg Trp Thr Ile Lys Asn Ser Ile Lys		
290	295	

&lt;210&gt; 3916

&lt;211&gt; 978

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3916

Met Ala Val Lys Thr Ser Glu Val Met Ala Gln Leu Thr Glu Ser Arg
1 5 10 15
Gln Ser Ile Leu Lys Leu Glu Ser Glu Leu Glu Asn Lys Asp Glu Ile
20 25 30
Leu Arg Asp Lys Phe Ser Leu Met Asn Glu Asn Arg Glu Leu Lys Val
35 40 45
Arg Val Ala Ala Gln Asn Glu Arg Leu Asp Leu Cys Gln Gln Glu Ile
50 55 60
Glu Ser Ser Arg Val Glu Leu Arg Ser Leu Glu Lys Ile Ile Ser Gln
65 70 75 80

Leu Pro Leu Lys Arg Glu Leu Phe Gly Phe Lys Ser Tyr Leu Ser Lys  
                     85                    90                    95  
 Tyr Gln Met Ser Ser Phe Ser Asn Lys Glu Asp Arg Cys Ile Gly Cys  
                     100                    105                    110  
 Cys Glu Ala Asn Lys Leu Val Ile Ser Glu Leu Arg Ile Lys Leu Ala  
                     115                    120                    125  
 Ile Lys Glu Ala Glu Ile Gln Lys Leu His Ala Asn Leu Thr Ala Asn  
                     130                    135                    140  
 Gln Leu Ser Gln Ser Leu Ile Thr Cys Asn Asp Ser Gln Glu Ser Ser  
 145                    150                    155                    160  
 Lys Leu Ser Ser Leu Glu Thr Glu Pro Val Lys Leu Gly Gly His Gln  
                     165                    170                    175  
 Val Ala Glu Ser Val Lys Asp Gln Asn Gln His Thr Met Asn Lys Gln  
                     180                    185                    190  
 Tyr Glu Lys Glu Arg Gln Arg Leu Val Thr Gly Ile Glu Glu Leu Arg  
                     195                    200                    205  
 Thr Lys Leu Ile Gln Ile Glu Ala Glu Asn Ser Asp Leu Lys Val Asn  
                     210                    215                    220  
 Met Ala His Arg Thr Ser Gln Phe Gln Leu Ile Gln Glu Glu Leu Leu  
 225                    230                    235                    240  
 Glu Lys Ala Ser Asn Ser Ser Lys Leu Glu Ser Glu Met Thr Lys Lys  
                     245                    250                    255  
 Cys Ser Gln Leu Leu Thr Leu Glu Lys Gln Leu Glu Glu Lys Ile Val  
                     260                    265                    270  
 Ala Tyr Ser Ser Ile Ala Ala Lys Asn Ala Glu Leu Glu Gln Glu Leu  
                     275                    280                    285  
 Met Glu Lys Asn Glu Lys Ile Arg Ser Leu Glu Thr Asn Ile Asn Thr  
                     290                    295                    300  
 Glu His Glu Lys Ile Cys Leu Ala Phe Glu Lys Ala Lys Lys Ile His



305                      310                      315                      320  
Leu Glu Gln His Lys Glu Met Glu Lys Gln Ile Glu Arg Leu Glu Ala  
                         325                      330                      335  
Gln Leu Glu Lys Lys Asp Gln Gln Phe Lys Glu Gln Glu Lys Thr Met  
                         340                      345                      350  
Ser Met Leu Gln Gln Asp Ile Ile Cys Lys Gln His His Leu Glu Ser  
                         355                      360                      365  
Leu Asp Arg Leu Leu Thr Glu Ser Lys Gly Glu Met Lys Lys Glu Asn  
                         370                      375                      380  
Met Lys Lys Asp Glu Ala Leu Lys Ala Leu Gln Asn Gln Val Ser Glu  
385                      390                      395                      400  
Glu Thr Ile Lys Val Arg Gln Leu Asp Ser Ala Leu Glu Ile Cys Lys  
                         405                      410                      415  
Glu Glu Leu Val Leu His Leu Asn Gln Leu Glu Gly Asn Lys Glu Lys  
                         420                      425                      430  
Phe Glu Lys Gln Leu Lys Lys Lys Ser Glu Glu Val Tyr Cys Leu Gln  
                         435                      440                      445  
Lys Glu Leu Lys Ile Lys Asn His Ser Leu Gln Glu Thr Ser Glu Gln  
                         450                      455                      460  
Asn Val Ile Leu Gln His Thr Leu Gln Gln Gln Gln Gln Met Leu Gln  
465                      470                      475                      480  
Gln Glu Thr Ile Arg Asn Gly Glu Leu Glu Asp Thr Gln Thr Lys Leu  
                         485                      490                      495  
Glu Lys Gln Val Ser Lys Leu Glu Gln Glu Leu Gln Lys Gln Arg Glu  
                         500                      505                      510  
Ser Ser Ala Glu Lys Leu Arg Lys Met Glu Glu Lys Cys Glu Ser Ala  
                         515                      520                      525  
Ala His Glu Ala Asp Leu Lys Arg Gln Lys Val Ile Glu Leu Thr Gly  
                         530                      535                      540

Thr Ala Arg Gln Val Lys Ile Glu Met Asp Gln Tyr Lys Glu Glu Leu  
545 550 555 560  
Ser Lys Met Glu Lys Glu Ile Met His Leu Lys Arg Asp Gly Glu Asn  
565 570 575  
Lys Ala Met His Phe Ser Gln Leu Asp Met Ile Leu Asp Gln Thr Lys  
580 585 590  
Thr Glu Leu Glu Lys Lys Thr Asn Ala Val Lys Glu Leu Glu Lys Leu  
595 600 605  
Gln His Ser Thr Glu Thr Glu Leu Thr Glu Ala Leu Gln Lys Arg Glu  
610 615 620  
Val Leu Glu Thr Glu Leu Gln Asn Ala His Gly Glu Leu Lys Ser Thr  
625 630 635 640  
Leu Arg Gln Leu Gln Glu Leu Arg Asp Val Leu Gln Lys Ala Gln Leu  
645 650 655  
Ser Leu Glu Glu Lys Tyr Thr Thr Ile Lys Asp Leu Thr Ala Glu Leu  
660 665 670  
Arg Glu Cys Lys Met Glu Ile Glu Asp Glu Lys Gln Glu Leu Leu Glu  
675 680 685  
Met Asp Gln Ala Leu Lys Glu Arg Asn Trp Glu Leu Lys Gln Arg Ala  
690 695 700  
Ala Gln Val Thr His Leu Asp Met Thr Ile Arg Glu His Arg Gly Glu  
705 710 715 720  
Met Glu Gln Lys Ile Ile Lys Leu Glu Gly Thr Leu Glu Lys Ser Glu  
725 730 735  
Leu Glu Leu Lys Glu Cys Asn Lys Gln Ile Glu Ser Leu Asn Asp Lys  
740 745 750  
Leu Gln Asn Ala Lys Glu Gln Leu Arg Glu Lys Glu Phe Ile Met Leu  
755 760 765  
Gln Asn Glu Gln Glu Ile Ser Gln Leu Lys Lys Glu Ile Glu Arg Thr

770 775 780  
Gln Gln Arg Met Lys Glu Met Glu Ser Val Met Lys Glu Gln Glu Gln  
785 790 795 800  
Tyr Ile Ala Thr Gln Cys Lys Glu Ala Ile Asp Leu Gly Gln Lys Leu  
805 810 815  
Arg Leu Thr Arg Glu Gln Val Gln Asn Ser His Thr Glu Leu Ala Glu  
820 825 830  
Ala Arg His Gln Gln Val Gln Ala Gln Arg Glu Ile Glu Arg Leu Ser  
835 840 845  
Ser Glu Leu Glu Asp Met Lys Gln Leu Ser Lys Glu Lys Asp Ala His  
850 855 860  
Gly Asn His Leu Ala Glu Glu Leu Gly Ala Ser Lys Val Arg Glu Ala  
865 870 875 880  
His Leu Glu Ala Arg Met Gln Ala Glu Ile Lys Lys Leu Ser Ala Glu  
885 890 895  
Val Glu Ser Leu Lys Glu Ala Tyr His Met Glu Met Ile Ser His Gln  
900 905 910  
Glu Asn His Ala Lys Trp Lys Ile Ser Ala Asp Ser Gln Lys Ser Ser  
915 920 925  
Val Gln Gln Leu Asn Glu Gln Leu Glu Lys Ala Lys Leu Glu Leu Glu  
930 935 940  
Glu Ala Gln Asp Thr Val Ser Asn Leu His Gln Gln Val Gln Asp Arg  
945 950 955 960  
Asn Glu Val Ile Glu Ala Ala Asn Glu Ala Leu Leu Thr Lys Gly Glu  
965 970 975  
Asn Val

&lt;210&gt; 3917

&lt;211&gt; 874

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3917

Met Ser Asp Gly Lys Val Gly Glu Ser Ser Lys Lys Ser Glu Ile Lys

1 5 10 15

Glu Ile Glu Tyr Thr Lys Leu Lys Lys Ser Lys Ile Glu Asp Ala Phe

20 25 30

Ser Lys Glu Gly Lys Ser Asp Val Leu Leu Lys Leu Val Leu Glu Gln

35 40 45

Gly Asp Ser Ser Glu Ile Leu Ser Lys Lys Asp Leu Pro Leu Asp Ser

50 55 60

Glu Asn Val Gln Lys Asp Leu Val Gly Leu Ala Ile Glu Asn Leu His

65 70 75 80

Lys Ser Glu Glu Met Leu Lys Glu Arg Gln Ser Asp Gln Asp Met Asn

85 90 95

His Ser Pro Asn Ile Gln Ser Gly Lys Asp Ile His Glu Gln Lys Asn

100 105 110

Thr Lys Glu Lys Asp Leu Ser Trp Ser Glu His Leu Phe Ala Pro Lys

115 120 125

Glu Ile Pro Tyr Ser Glu Asp Phe Glu Val Ser Ser Phe Lys Lys Glu

130 135 140

Ile Ser Ala Glu Leu Tyr Lys Asp Asp Phe Glu Val Ser Ser Leu Leu

145 150 155 160

Ser Leu Arg Lys Asp Ser Gln Ser Cys Arg Asp Lys Pro Gln Pro Met

165 170 175

Arg Ser Ser Thr Ser Gly Ala Thr Ser Phe Gly Ser Asn Glu Glu Ile

180 185 190  
Ser Glu Cys Leu Ser Glu Lys Ser Leu Ser Ile His Ser Asn Val His  
195 200 205  
Ser Asp Arg Leu Leu Glu Leu Lys Ser Pro Thr Glu Leu Met Lys Ser  
210 215 220  
Glu Glu Arg Ser Asp Val Glu His Glu Gln Gln Val Thr Glu Ser Pro  
225 230 235 240  
Ser Leu Ala Ser Val Pro Thr Ala Asp Glu Leu Phe Asp Phe His Ile  
245 250 255  
Gly Asp Arg Val Leu Ile Gly Asn Val Gln Pro Gly Ile Leu Arg Phe  
260 265 270  
Lys Gly Glu Thr Ser Phe Ala Lys Gly Phe Trp Ala Gly Val Glu Leu  
275 280 285  
Asp Lys Pro Glu Gly Asn Asn Asn Gly Thr Tyr Asp Gly Ile Ala Tyr  
290 295 300  
Phe Glu Cys Lys Glu Lys His Gly Ile Phe Ala Pro Pro Gln Lys Ile  
305 310 315 320  
Ser His Ile Pro Glu Asn Phe Asp Asp Tyr Val Asp Ile Asn Glu Asp  
325 330 335  
Glu Asp Cys Tyr Ser Asp Glu Arg Tyr Gln Cys Tyr Asn Gln Glu Gln  
340 345 350  
Asn Asp Thr Glu Gly Pro Lys Asp Arg Glu Lys Asp Val Ser Glu Tyr  
355 360 365  
Phe Tyr Glu Lys Ser Leu Pro Ser Val Asn Asp Ile Glu Ala Ser Val  
370 375 380  
Asn Arg Ser Arg Ser Leu Lys Ile Glu Thr Asp Asn Val Gln Asp Ile  
385 390 395 400  
Ser Gly Val Leu Glu Ala His Val His Gln Gln Ser Ser Val Asp Ser  
405 410 415

Gln Ile Ser Ser Lys Glu Asn Lys Asp Leu Ile Ser Asp Ala Thr Glu  
420 425 430  
Lys Val Ser Ile Ala Ala Glu Asp Asp Thr Leu Asp Asn Thr Phe Ser  
435 440 445  
Glu Glu Leu Glu Lys Gln Gln Gln Phe Thr Glu Glu Glu Asp Asn Leu  
450 455 460  
Tyr Ala Glu Ala Ser Glu Lys Leu Cys Thr Pro Leu Leu Asp Leu Leu  
465 470 475 480  
Thr Arg Glu Lys Asn Gln Leu Glu Ala Gln Leu Lys Ser Ser Leu Asn  
485 490 495  
Glu Glu Lys Lys Ser Lys Gln Gln Leu Glu Lys Ile Ser Leu Leu Thr  
500 505 510  
Asp Ser Leu Leu Lys Val Phe Val Lys Asp Thr Val Asn Gln Leu Gln  
515 520 525  
Gln Ile Lys Lys Thr Arg Asp Glu Lys Ile Gln Leu Ser Asn Gln Glu  
530 535 540  
Leu Leu Gly Asp Asp Gln Lys Lys Val Thr Pro Gln Asp Leu Ser Gln  
545 550 555 560  
Asn Val Glu Glu Gln Ser Pro Ser Ile Ser Gly Cys Phe Leu Ser Ser  
565 570 575  
Glu Leu Glu Asp Glu Lys Glu Glu Ile Ser Ser Pro Asp Met Cys Pro  
580 585 590  
Arg Pro Glu Ser Pro Val Phe Gly Ala Ser Gly Gln Glu Glu Leu Ala  
595 600 605  
Lys Arg Leu Ala Glu Leu Glu Leu Ser Arg Glu Phe Leu Ser Ala Leu  
610 615 620  
Gly Asp Asp Gln Asp Trp Phe Asp Glu Asp Phe Gly Leu Ser Ser Ser  
625 630 635 640  
His Lys Ile Gln Lys Asn Lys Ala Glu Glu Thr Ile Val Pro Leu Met

645 650 655  
Ala Glu Pro Lys Arg Val Thr Gln Gln Pro Cys Glu Thr Leu Leu Ala  
660 665 670  
Val Pro His Thr Ala Glu Glu Val Glu Ile Leu Val His Asn Ala Ala  
675 680 685  
Glu Glu Leu Trp Lys Trp Lys Glu Leu Gly His Asp Leu His Ser Ile  
690 695 700  
Ser Ile Pro Thr Lys Leu Leu Gly Cys Ala Ser Lys Gly Leu Asp Ile  
705 710 715 720  
Glu Ser Thr Ser Lys Arg Val Tyr Lys Gln Ala Val Phe Asp Leu Thr  
725 730 735  
Lys Glu Ile Phe Glu Glu Ile Phe Ala Glu Asp Pro Asn Leu Asn Gln  
740 745 750  
Pro Val Trp Met Lys Pro Cys Arg Ile Asn Ser Ser Tyr Phe Arg Arg  
755 760 765  
Val Lys Asn Pro Asn Asn Leu Asp Glu Ile Lys Ser Phe Ile Ala Ser  
770 775 780  
Glu Val Leu Lys Leu Phe Ser Leu Lys Lys Glu Pro Asn His Lys Thr  
785 790 795 800  
Asp Trp Gln Lys Met Met Lys Phe Gly Arg Lys Lys Arg Asp Arg Val  
805 810 815  
Asp His Ile Leu Val Gln Glu Leu His Glu Glu Glu Ala Gln Trp Val  
820 825 830  
Asn Tyr Asp Glu Asp Glu Leu Cys Val Lys Met Gln Leu Ala Asp Gly  
835 840 845  
Ile Phe Glu Thr Leu Ile Lys Asp Thr Ile Asp Val Leu Asn Gln Ile  
850 855 860  
Ser Glu Lys Gln Gly Arg Met Leu Leu Val  
865 870

&lt;210&gt; 3918

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3918

Met Leu His Pro Phe Thr Gly Ile Pro Ser Trp Phe Thr Met Ser Ser

1 5 10 15

Tyr Ile His His Met Ser Gly Leu Ser Gly Leu Pro Leu Pro Pro Trp

20 25 30

Arg Gly Ser Arg Gln His Asn Asn Ala His Phe Arg Val Gly Leu Leu

35 40 45

Gly Pro Leu Leu Ala Pro Ala Pro Ile Gly Ser Ile Pro Trp Ser Gln

50 55 60

Thr Leu Arg Trp Arg Ser Cys Ala Gly Val Tyr Trp Arg Val Leu Leu

65 70 75 80

Gly Thr Thr Pro Val Arg Gly Glu Gly Arg Arg Val Gly Gln Gln Glu

85 90 95

Lys Leu Gly Cys Glu Ala Phe Ser Ser Leu Ser Gln Phe His Arg Gln

100 105 110

Pro Trp Arg Trp Ala Gly Pro Ser Glu Leu Ser Pro Leu Arg Pro Arg

115 120 125

Asp Gln Ala Ser Val His Pro His Ser Thr Ser Val Thr Thr Gly Ser

130 135 140

Gly Ala Thr Ser Ala Arg Gly Thr Ala Trp Gly Gly Thr Arg Met Arg

145 150 155 160

Gly Val Ser Arg Gln His Pro Trp Gln



165

&lt;210&gt; 3919

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3919

Met Ser Glu Leu Ile Ser Asn Gly Ile Gln Ile Tyr Gln Leu Pro Thr

1 5 10 15

Asp Glu Glu Thr Ala Ala Gln Ala Asn Ser Ser Val Ser Gly Leu Leu

20 25 30

Pro Phe Ala Val Val Gly Ser Thr Asp Glu Val Lys Val Gly Lys Arg

35 40 45

Met Val Arg Gly Arg His Tyr Pro Trp Gly Val Leu Gln Val Glu Asn

50 55 60

Glu Asn His Cys Asp Phe Val Lys Leu Arg Asp Met Leu Leu Cys Thr

65 70 75 80

Asn Met Glu Asn Leu Lys Glu Lys Thr His Thr Gln His Tyr Glu Cys

85 90 95

Tyr Arg Tyr Gln Lys Leu Gln Lys Met Gly Phe Thr Asp Val Gly Pro

100 105 110

Asn Asn Gln Pro Val Ser Phe Gln Glu Ile Phe Glu Ala Lys Arg Gln

115 120 125

Glu Phe Tyr Asp Gln Cys Gln Arg Glu Glu Glu Glu Leu Lys Gln Arg

130 135 140

Phe Met Gln Arg Val Lys Glu Lys Glu Ala Thr Phe Lys Glu Ala Glu

145 150 155 160

Lys Glu Leu Gln Asp Lys Phe Glu His Leu Lys Met Ile Gln Gln Glu  
                             165                            170                            175  
 Glu Ile Arg Lys Leu Glu Glu Glu Lys Lys Gln Leu Glu Gly Glu Ile  
                             180                            185                            190  
 Ile Asp Phe Tyr Lys Met Lys Ala Ala Ser Glu Ala Leu Gln Thr Gln  
                             195                            200                            205  
 Leu Ser Thr Asp Thr Lys Lys Asp Lys His Arg Lys Lys  
                             210                            215                            220

<210> 3920

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3920

Met Leu Phe Ile Glu Leu Val Leu Tyr Leu Pro Ser Val Ser Lys Phe  
           1                            5                            10                            15  
 Ile Lys Ile Arg Asp Phe Leu Cys Phe Pro Arg Glu Asn Ser Thr Phe  
                             20                            25                            30  
 Leu Leu Thr Val Arg Pro Val His Trp Cys Leu Ala Pro Val Gln Ala  
                             35                            40                            45  
 Asn Gly Ser Ala Met Ser Ser Ala Pro Ile Ser Trp Arg Asp Gly Gln  
                             50                            55                            60  
 Arg His Phe Gln Lys Cys Ser Ser Leu Gln Pro Phe Thr Trp Asn Lys  
                             65                            70                            75                            80  
 Cys His Lys Asp Leu Trp Arg Cys Phe Val Pro Gly Phe Ser Thr Val  
                             85                            90                            95  
 Ser Ala Phe Gly Asp Glu Glu Glu Phe Leu Pro Ile Leu Val Val Leu

100 105 110  
 Ala Ser Ile Gly  
 115

<210> 3921

<211> 978

<212> PRT

<213> Homo sapiens

<400> 3921

Met Lys Ser Gly Met Ile Asn Leu Thr Ser Gly Leu Ala Thr Gly Val  
 1 5 10 15  
 Thr Asn Lys Lys Glu Val Asp Glu Asp Lys Val Gly Ile Cys Thr Gln  
 20 25 30  
 Lys His Ser Glu Asn Val Ser Lys Val Thr Ser Thr Thr Thr Val Lys  
 35 40 45  
 Ser Lys Asp Thr Gln Glu Pro Asn Leu Ser Glu Thr Phe Asn Asn Asn  
 50 55 60  
 Glu Ile Glu Lys Lys Arg Asn Leu Ile Pro Thr Asp Lys Lys Gly Lys  
 65 70 75 80  
 Asp Asp Glu Ile Asn Thr His Phe Ser Leu Ile Ile Asp Asp Thr Glu  
 85 90 95  
 Tyr Glu Lys Glu Val Leu Gly Ser Asp Ser Glu Ile Gly Tyr Lys Lys  
 100 105 110  
 Lys Ile Asp Asn Ala Arg Glu Ser Ser Phe Lys Lys Asp Asp Lys Leu  
 115 120 125  
 Phe Gln Leu Ser Ser Leu Lys Ser Lys Arg Asn Leu Gly Thr Thr Thr  
 130 135 140

Asp Thr Leu Glu Ile Arg Thr Arg Thr Ser Ser Asn Glu Gly Arg Arg  
145 150 155 160  
Asp Ser Pro Thr Gln Thr Cys Arg Asp Glu Glu His His Ser Asp Tyr  
165 170 175  
Glu His Val Gln Asn Val Ile Glu Asn Ile Phe Glu Asp Val Leu Glu  
180 185 190  
Leu Ser Ser Ser Pro Glu Pro Ala Tyr Tyr Ser Lys Leu Ser Tyr Asp  
195 200 205  
Gln Ser Pro Pro Gly Asp Asn Val Leu Asn Val Ile Gln Glu Ile Ser  
210 215 220  
Arg Asp Ser Ala Gln Ser Val Thr Thr Lys Lys Val Ser Ser Ser Thr  
225 230 235 240  
Asn Lys Asn Ile Ser Ala Lys Glu Lys Glu Glu Glu Glu Arg Glu Lys  
245 250 255  
Glu Lys Val Arg Glu Glu Ile Lys Ser Glu Pro Ser Lys Pro Asp Asp  
260 265 270  
Pro Gln Asn Gln Gln Glu Ser Lys Pro Gly Ile Phe Pro Ala Lys Phe  
275 280 285  
Leu Glu Asp Val Ile Thr Glu Met Val Lys Gln Leu Ile Phe Ser Ser  
290 295 300  
Ile Pro Glu Thr Gln Ile Gln Asp Arg Cys Gln Asn Val Ser Asp Lys  
305 310 315 320  
Gln Asn Gln Ala Lys Leu Tyr Asp Thr Ala Met Lys Leu Ile Asn Ser  
325 330 335  
Leu Leu Lys Glu Phe Ser Asp Ala Gln Ile Lys Val Phe Arg Pro Asp  
340 345 350  
Lys Gly Asn Gln Phe Pro Gly Gly Lys Val Ser Ser Val Pro Lys Val  
355 360 365  
Pro Pro Arg Tyr Lys Glu Pro Thr Thr Asp Glu Ala Pro Ser Ser Ile

370 375 380  
Lys Ile Lys Ser Ala Asp Lys Met Pro Pro Met His Lys Met Met Arg  
385 390 395 400  
Lys Pro Ser Ser Asp Lys Ile Pro Ser Ile Asp Lys Thr Leu Val Asn  
405 410 415  
Lys Val Val His Ser Ser Val Cys Asn Ile Leu Asn Asp Tyr Gly Ser  
420 425 430  
Gln Asp Ser Ile Trp Lys Asn Ile Asn Ser Asn Gly Glu Asn Leu Ala  
435 440 445  
Arg Arg Leu Thr Ser Ala Val Ile Asn Glu Ile Phe Gln His Gln Val  
450 455 460  
Asn Leu Ile Phe Cys Asp Glu Val Ser Val Ser Ala Cys Leu Pro Leu  
465 470 475 480  
Glu Ser Lys Asp Val Val Lys Lys Val Gln Lys Leu Ala Gln Thr Ala  
485 490 495  
Ser Lys Glu Cys Gln Thr Ser Ser Pro Tyr Thr Ile Ile Leu Pro His  
500 505 510  
Lys Phe Leu Glu Asn Val Ile Ser Ala Leu Phe Ser Lys Ile Phe Ser  
515 520 525  
Thr Ile Ser Ser Thr Lys Thr Lys Glu Pro Glu Asp Asn Leu Ser Thr  
530 535 540  
Glu Leu Asn Phe Leu Gln Met Lys Leu Val Ser Ala Val Ala Thr Glu  
545 550 555 560  
Ile Ser Gln Asp Lys Tyr Met Thr Ile Gln Tyr Val Glu Thr Leu Gln  
565 570 575  
Ser Asp Asp Asp Glu Ile Ile Gln Leu Val Val Gln Ser Val Tyr Asn  
580 585 590  
Asn Leu Leu Pro Gln Phe Gly Ser Gln Glu Ile Ile Gln Asn Cys Val  
595 600 605

Thr Ser Gly Cys Lys Ile Leu Ser Glu Asn Ile Val Asp Leu Val Leu  
610 615 620  
Arg Glu Val Ala Ser Asn Gln Leu Gln Ser Tyr Phe Cys Gly Glu Leu  
625 630 635 640  
Thr Pro His Gln Cys Val Glu Val Glu Asn Ile Val Glu Lys Ile Leu  
645 650 655  
Lys Asp Val Phe Gln Thr Thr Asp Val Pro Gln Pro Lys Pro Ser His  
660 665 670  
Ala Asp Lys Leu Ser Tyr Asn Ile Ile Glu Glu Ile Ala Val Lys Phe  
675 680 685  
Leu Ser Lys Leu Leu Ser Ile Phe Pro Lys Val His Lys Glu Arg Thr  
690 695 700  
Lys Ser Leu Glu Thr Asp Met Gln Lys Ile Thr Ser Lys Val Leu Asn  
705 710 715 720  
Ser Val Gln Glu Phe Ile Ser Lys Ser Lys Ile Lys Leu Val Pro Pro  
725 730 735  
Thr Lys Glu Ser Pro Thr Val Pro Val Ala Asp Asn Ala Thr Ile Glu  
740 745 750  
Asn Ile Val Asn Ser Ile Tyr Thr Ser Val Leu Lys His Ser Gly Ser  
755 760 765  
Tyr Thr Ser Val Phe Lys Asp Leu Met Gly Lys Ser Asn Val Leu Ser  
770 775 780  
Asp Thr Ile Gly Phe Leu Met Val Asn Ala Ile Ser Asn Ser Glu Phe  
785 790 795 800  
Gln Pro Gln Val Glu Glu Glu Val Ser Asn Ser Glu Leu Val Leu Glu  
805 810 815  
Ala Val Lys Ile Met Glu Lys Val Ile Lys Ile Ile Asp Glu Leu Lys  
820 825 830  
Ser Lys Glu Lys Ser Ser Ser Arg Lys Gly Leu Thr Leu Asp Ala Lys

835	840	845
Leu Leu Glu Glu Val Leu Ala Leu Phe Leu Ala Lys Leu Ile Arg Leu		
850	855	860
Pro Ser Ser Ser Ser Lys Asp Glu Lys Asn Leu Ser Lys Thr Glu Leu		
865	870	875
Asn Lys Ile Ala Ser Gln Leu Ser Lys Leu Val Thr Ala Glu Ile Ser		
885	890	895
Arg Ser Ser Ile Ser Leu Ile Ala Ser Asp Pro Glu Glu His Cys Leu		
900	905	910
Asn Pro Glu Asn Thr Glu Arg Ile Tyr Gln Val Val Asp Ser Val Tyr		
915	920	925
Ser Asn Ile Leu Gln Gln Ser Gly Thr Asn Lys Glu Phe Tyr Tyr Asp		
930	935	940
Ile Lys Asp Thr Asn Thr Ala Phe Pro Lys Lys Val Ala Ser Leu Ile		
945	950	955
Ile Asp Gly Val Ser Ser Phe Pro Leu Asp Thr Ile Asn Ser Thr Phe		
965	970	975
Lys Cys		

&lt;210&gt; 3922

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3922

Met Leu Ser Ala Val Pro Leu Gly Pro Leu Leu Phe Leu Tyr Thr Leu

1

5

10

15

Ser Leu Cys Leu Ile Ser Phe Leu Ser Leu Ser Ser His Pro Thr Arg  
                     20                    25                    30  
 Asn Thr His Ser Cys Gly Gly Glu Ser His Pro Phe Thr Phe Leu Phe  
                     35                    40                    45  
 Phe Ser Phe Phe Phe Leu Pro Ser Phe Phe Phe Leu Phe Phe Leu Phe  
                     50                    55                    60  
 Phe Phe Phe Leu Thr Glu Ser Cys Ser Val Thr Gln Ala Gly Val Gln  
                     65                    70                    75                    80  
 Trp Arg Tyr Leu Gly Ser Leu Gln Pro Pro Pro Pro Arg Phe Lys Gln  
                                     85                    90                    95  
 Ser Ser Cys Leu Ser Leu Pro Ser Ile Trp Asn Tyr Arg Arg Val Pro  
                     100                    105                    110  
 Pro Arg Pro Ala Ser Phe Cys Ile Ile Ser Arg Asp Gly Val Ser Pro  
                     115                    120                    125  
 Cys Trp Pro Gly Trp Ser Arg Thr Pro Asp Leu Arg  
                     130                    135                    140

<210> 3923

<211> 126

<212> PRT

<213> Homo sapiens

<400> 3923

Met Tyr Pro Glu Pro Ser Leu Phe Leu Tyr Cys Pro Ser Lys Met Ser  
                     1                    5                    10                    15  
 Val Gln Gly Pro Gly Val Glu Glu Pro Val Val Cys Trp Gly Arg Ile  
                     20                    25                    30  
 Leu Gly Trp His Ser Leu Arg His Pro Thr Ser Thr Ser Pro Met Leu



35                      40                      45  
 Phe His Met Val Pro Gly Ser Ser Thr Val Thr Ser Thr Leu Glu Met  
 50                      55                      60  
 Ala Thr Val Thr Cys Pro Ser His Arg Glu Thr Lys His Ser Pro Cys  
 65                      70                      75                      80  
 Leu Pro Asp Ser Gly Val Cys Leu Leu Ser Phe Tyr His His Leu Pro  
 85                      90                      95  
 Pro Val Glu Gly Phe Leu Arg Asn Asp Leu Pro Gly Glu Asn Pro Phe  
 100                      105                      110  
 Ile Pro Arg Pro Pro Ser His Pro Ile Ile Gln Cys Ile Leu  
 115                      120                      125

&lt;210&gt; 3924

&lt;211&gt; 926

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3924

Met His Phe Arg Asp Thr Ser Glu Arg Gln Ser Asp Ala Val Asn Glu  
 1                      5                      10                      15  
 Ser Ser Leu Asp Ser Val His Leu Gln Met Ile Lys Gly Met Leu Tyr  
 20                      25                      30  
 Gln Gln Arg Gln Asp Phe Ser Ser Gln Asp Ser Val Ser Arg Lys Lys  
 35                      40                      45  
 Val Leu Ser Leu Asn Leu Lys Gln Thr Ser Lys Thr Glu Glu Ile Lys  
 50                      55                      60  
 Asn Val Leu Gly Gly Ser Thr Cys Tyr Asn Tyr Ser Val Lys Asp Leu  
 65                      70                      75                      80

Gln Glu Ile Ser Gly Ser Glu Leu Cys Phe Pro Ser Gly Gln Lys Ile  
85 90 95  
Lys Ser Ala Tyr Leu Pro Gln Arg Gln Ile His Ile Pro Ala Val Phe  
100 105 110  
Gln Ser Pro Ala His Tyr Lys Gln Thr Phe Thr Ser Cys Leu Ile Glu  
115 120 125  
His Leu Asn Ile Leu Leu Phe Gly Leu Ala Gln Asn Leu Gln Lys Ala  
130 135 140  
Leu Ser Lys Val Asp Ile Ser Phe Tyr Thr Ser Leu Lys Gly Glu Lys  
145 150 155 160  
Leu Lys Asn Ala Glu Asn Asn Val Pro Ser Cys His His Ser Gln Pro  
165 170 175  
Ala Lys Leu Val Met Val Lys Lys Glu Gly Pro Asn Lys Gly Arg Leu  
180 185 190  
Phe Tyr Thr Cys Asp Gly Pro Lys Ala Asp Arg Cys Lys Phe Phe Lys  
195 200 205  
Trp Leu Glu Asp Val Thr Pro Gly Tyr Ser Thr Gln Glu Gly Ala Arg  
210 215 220  
Pro Gly Met Val Leu Ser Asp Ile Lys Ser Ile Gly Leu Tyr Leu Arg  
225 230 235 240  
Ser Gln Lys Ile Pro Leu Tyr Glu Glu Cys Gln Leu Leu Val Arg Lys  
245 250 255  
Gly Phe Asp Phe Gln Arg Lys Gln Tyr Gly Lys Leu Lys Lys Phe Thr  
260 265 270  
Thr Val Asn Pro Glu Phe Tyr Asn Glu Pro Lys Thr Lys Leu Tyr Leu  
275 280 285  
Lys Leu Ser Arg Lys Glu Arg Ser Ser Ala Tyr Ser Lys Asn Asp Leu  
290 295 300  
Trp Val Val Ser Lys Thr Leu Asp Phe Glu Leu Asp Thr Phe Ile Ala

305                      310                      315                      320  
 Cys Ser Ala Phe Phe Gly Pro Ser Ser Ile Asn Glu Ile Glu Ile Leu  
                          325                      330                      335  
 Pro Leu Lys Gly Tyr Phe Pro Ser Asn Trp Pro Thr Asn Met Val Val  
                          340                      345                      350  
 His Ala Leu Leu Val Cys Asn Ala Ser Thr Glu Leu Thr Thr Leu Lys  
                          355                      360                      365  
 Asn Ile Gln Asp Tyr Phe Asn Pro Ala Thr Leu Pro Leu Thr Gln Tyr  
                          370                      375                      380  
 Leu Leu Thr Thr Ser Ser Pro Thr Ile Val Ser Asn Lys Arg Val Ser  
 385                      390                      395                      400  
 Lys Arg Lys Phe Ile Pro Pro Ala Phe Thr Asn Val Ser Thr Lys Phe  
                          405                      410                      415  
 Glu Leu Leu Ser Leu Gly Ala Thr Leu Lys Leu Ala Ser Glu Leu Ile  
                          420                      425                      430  
 Gln Val His Lys Leu Asn Lys Asp Gln Ala Thr Ala Leu Ile Gln Ile  
                          435                      440                      445  
 Ala Gln Met Met Ala Ser His Glu Ser Ile Glu Glu Val Lys Glu Leu  
                          450                      455                      460  
 Gln Thr His Thr Phe Pro Ile Thr Ile Ile His Gly Val Phe Gly Ala  
 465                      470                      475                      480  
 Gly Lys Ser Tyr Leu Leu Ala Val Val Ile Leu Phe Phe Val Gln Leu  
                          485                      490                      495  
 Phe Glu Lys Ser Glu Ala Pro Thr Ile Gly Asn Ala Arg Pro Trp Lys  
                          500                      505                      510  
 Leu Leu Ile Ser Ser Ser Thr Asn Val Ala Val Asp Arg Val Leu Leu  
                          515                      520                      525  
 Gly Leu Leu Ser Leu Gly Phe Glu Asn Phe Ile Arg Val Gly Ser Val  
                          530                      535                      540

Arg Lys Ile Ala Lys Pro Ile Leu Pro Tyr Ser Leu His Ala Gly Ser  
545 550 555 560  
Glu Asn Glu Ser Glu Gln Leu Lys Glu Leu His Ala Leu Met Lys Glu  
565 570 575  
Asp Leu Thr Pro Thr Glu Arg Val Tyr Val Arg Lys Ser Ile Glu Gln  
580 585 590  
His Lys Leu Gly Thr Asn Arg Thr Leu Leu Lys Gln Val Arg Val Val  
595 600 605  
Gly Val Thr Cys Ala Ala Cys Pro Phe Pro Cys Met Asn Asp Leu Lys  
610 615 620  
Phe Pro Val Val Val Leu Asp Glu Cys Ser Gln Ile Thr Glu Pro Ala  
625 630 635 640  
Ser Leu Leu Pro Ile Ala Arg Phe Glu Cys Glu Lys Leu Ile Leu Val  
645 650 655  
Gly Asp Pro Lys Gln Leu Pro Pro Thr Ile Gln Gly Ser Asp Ala Ala  
660 665 670  
His Glu Asn Gly Leu Glu Gln Thr Leu Phe Asp Arg Leu Cys Leu Met  
675 680 685  
Gly His Lys Pro Ile Leu Leu Arg Thr Gln Tyr Arg Cys His Pro Ala  
690 695 700  
Ile Ser Ala Ile Ala Asn Asp Leu Phe Tyr Lys Gly Ala Leu Met Asn  
705 710 715 720  
Gly Val Thr Glu Ile Glu Arg Ser Pro Leu Leu Glu Trp Leu Pro Thr  
725 730 735  
Leu Cys Phe Tyr Asn Val Lys Gly Leu Glu Gln Ile Glu Arg Asp Asn  
740 745 750  
Ser Phe His Asn Val Ala Glu Ala Thr Phe Thr Leu Lys Leu Ile Gln  
755 760 765  
Ser Leu Ile Ala Ser Gly Ile Ala Gly Ser Met Ile Gly Val Ile Thr

出証特 2 0 0 4 - 3 0 5 9 6 6 0

Lys Val Leu Gln Leu Glu Ser Cys Leu Glu His Lys Ser Arg Ser Ser  
20 25 30  
Pro Ile Ala Leu Ile Asp Glu Lys Ser Thr Asn Ala His Leu Ser Leu  
35 40 45  
Pro Gln Lys Ser Pro Ser Leu Ala Lys Glu Val Pro Asp Leu Cys Phe  
50 55 60  
Ser Asp Asp Tyr Phe Ser Asp Lys Gly Ala Ala Lys Glu Glu Lys Pro  
65 70 75 80  
Lys Asn Asp Gln Glu Pro Val Asn Arg Ile Ile Gln Lys Lys Glu Asn  
85 90 95  
Asn Asp His Phe Glu Leu Asp Cys Thr Gly Pro Ser Ile Lys Ser Pro  
100 105 110  
Ser Ser Ser Ile Ile Lys Lys Ala Ser Phe Glu His Gly Lys Lys Gln  
115 120 125  
Glu Asn Asp Leu Asp Leu Leu Ser Asp Phe Ile Met Leu Arg Asn Lys  
130 135 140  
Tyr Lys Thr Cys Thr Ser Lys Thr Glu Val Thr Asn Ser Asp Glu Lys  
145 150 155 160  
His Asp Lys Glu Ala Cys Ser Leu Thr Leu Gln Glu Glu Ser Pro Ile  
165 170 175  
Val His Ile Asn Lys Thr Leu Glu Glu Ile Asn Gln Glu Arg Gly Thr  
180 185 190  
Asp Ser Val Ile Glu Ile Gln Ala Ser Asp Ser Gln Cys Gln Ala Phe  
195 200 205  
Cys Leu Leu Glu Ala Ala Ala Ser Pro Ile Leu Lys Asn Leu Val Ser  
210 215 220  
Leu Cys Thr Leu Pro Thr Ala Asn Trp Lys Phe Ala Thr Val Ile Phe  
225 230 235 240  
Asp Gln Thr Arg Phe Leu Leu Lys Glu Gln Glu Lys Val Val Ser Asp

245	250	255
Ala Val Arg Gln Gly Thr Ile Asp Glu Arg Glu Met Thr Phe Lys His		
260	265	270
Ala Ala Leu Leu His Leu Leu Val Thr Ile Arg Asp Val Leu Leu Thr		
275	280	285
Cys Ser Leu Asp Thr Ala Leu Gly Tyr Leu Ser Lys Ala Lys Asp Ile		
290	295	300
Tyr Asn Ser Ile Leu Gly Pro Tyr Leu Gly Asp Ile Trp Arg Gln Leu		
305	310	315
320		
Glu Ile Val Gln Phe Ile Arg Gly Lys Lys Pro Glu Thr Asn Tyr Lys		
325	330	335
Ile Gln Glu Leu Gln Cys Gln Ile Leu Ser Trp Met Gln Ser Gln Gln		
340	345	350
Gln Ile Lys Val Leu Ile Ile Ile Arg Met Asp Ser Asp Gly Glu Lys		
355	360	365
His Phe Leu Ile Lys Ile Leu Asn Lys Ile Glu Gly Leu Thr Leu Thr		
370	375	380
Val Leu His Ser Asn Glu Arg Lys Asp Phe Leu Glu Ser Glu Gly Val		
385	390	395
400		
Leu Arg Gly Thr Ser Ser Cys Val Val Val His Asn Gln Tyr Ile Gly		
405	410	415
Ala Asp Phe Pro Trp Ser Asn Phe Ser Phe Val Val Glu Tyr Asn Tyr		
420	425	430
Val Glu Asp Ser Cys Trp Thr Lys His Cys Lys Glu Leu Asn Ile Pro		
435	440	445
Tyr Met Ala Phe Lys Val Ile Leu Pro Asp Thr Val Leu Glu Arg Ser		
450	455	460
Thr Leu Leu Asp Arg Phe Gly Gly Phe Leu Leu Glu Ile Gln Ile Pro		
465	470	475
480		

Tyr Val Phe Phe Ala Ser Glu Gly Leu Leu Asn Thr Pro Asp Ile Leu			
	485	490	495
Gln Leu Leu Glu Ser Asn Tyr Asn Ile Ser Leu Val Glu Arg Gly Cys			
	500	505	510
Ser Glu Ser Leu Lys Leu Phe Gly Ser Ser Glu Cys Tyr Val Val Val			
	515	520	525
Thr Ile Asp Glu His Thr Ala Ile Ile Leu Gln Asp Leu Glu Glu Leu			
	530	535	540
Asn Cys Glu Lys Ala Ser Asp Asn Ile Ile Met Arg Leu Met Ala Leu			
545	550	555	560
Ser Leu Gln Tyr Arg Tyr Cys Trp Ile Ile Leu Tyr Thr Lys Glu Thr			
	565	570	575
Leu Asn Ser Glu Tyr Pro Leu Thr Glu Lys Thr Leu His His Leu Ala			
	580	585	590
Leu Ile Tyr Ala Ala Leu Val Ser Phe Gly Leu Asn Ser Glu Glu Leu			
	595	600	605
Asp Val Lys Leu Ile Ile Ala Pro Gly Val Glu Ala Thr Ala Leu Ile			
	610	615	620
Ile Arg Gln Ile Ala Asp His Ser Leu Met Thr Ser Lys Arg Asp Pro			
625	630	635	640
His Glu Trp Leu Asp Lys Ser Trp Leu Lys Val Ser Pro Ser Glu Glu			
	645	650	655
Glu Met Tyr Leu Leu Asp Phe Pro Cys Ile Asn Pro Leu Val Ala Gln			
	660	665	670
Leu Met Leu Asn Lys Gly Pro Ser Leu His Trp Ile Leu Leu Ala Thr			
	675	680	685
Leu Cys Gln Leu Gln Glu Leu Leu Pro Glu Val Pro Glu Lys Val Leu			
	690	695	700
Lys His Phe Cys Ser Ile Thr Ser Leu Phe Lys Ile Gly Ser Ser Ser			



705                      710                      715                      720  
Ile Thr Lys Ser Pro Gln Ile Ser Ser Pro Gln Glu Asn Arg Asn Gln  
                         725                      730                      735  
Ile Ser Thr Leu Ser Ser Gln Ser Ser Ala Ser Asp Leu Asp Ser Val  
                         740                      745                      750  
Ile Gln Glu His Asn Glu Tyr Tyr Gln Tyr Leu Gly Leu Gly Glu Thr  
                         755                      760                      765  
Val Gln Glu Asp Lys Thr Thr Thr Leu Asn Asp Asn Ser Ser Ile Met  
                         770                      775                      780  
Glu Leu Lys Gly Ile Ser Ser Phe Leu Pro Pro Val Thr Ser Tyr Asn  
785                      790                      795                      800  
Gln Thr Ser Tyr Trp Lys Asp Ser Ser Cys Lys Ser Asn Ile Gly Gln  
                         805                      810                      815  
Asn Thr Pro Phe Leu Ile Asn Ile Glu Ser Arg Arg Pro Ala Tyr Asn  
                         820                      825                      830  
Ser Phe Leu Asn His Ser Asp Ser Glu Ser Asp Val Phe Ser Leu Gly  
                         835                      840                      845  
Leu Thr Gln Met Asn Cys Glu Thr Ile Lys Ser Pro Thr Asp Thr Gln  
                         850                      855                      860  
Lys Arg Val Ser Val Val Pro Arg Phe Ile Asn Ser Gln Lys Arg Arg  
865                      870                      875                      880  
Thr His Glu Ala Lys Gly Phe Ile Asn Lys Asp Val Ser Asp Pro Ile  
                         885                      890                      895  
Phe Ser Leu Glu Gly Thr Gln Ser Pro Leu His Trp Asn Phe Lys Lys  
                         900                      905                      910  
Asn Ile Trp Glu Gln Glu Asn His Pro Phe Asn Leu Gln Tyr Gly Ala  
                         915                      920                      925  
Gln Gln Thr Ala Cys Asn Lys Leu Tyr Ser Gln Lys Gly Asn Leu Phe  
                         930                      935                      940

出証特 2 0 0 4 - 3 0 5 9 6 6 0

35	40	45
Ile Asp Asn Ile Arg Leu Cys Phe His Gly Leu Ser Ser Ala Val Lys		
50	55	60
Leu Lys Leu Leu Leu Gly Thr Leu His Leu Pro Arg Arg Thr Val Asp		
65	70	75
Glu Met Lys Gly Ala Leu Met Glu Ile Ile Gln Leu Ala Ser Leu Asp		
85	90	95
Ser Asp Pro Trp Val Leu Met Val Ala Asp Ile Leu Lys Ser Phe Pro		
100	105	110
Asp Thr Gly Ser Leu Asn Leu Glu Leu Glu Glu Gln Asn Pro Asn Val		
115	120	125
Gln Asp Ile Leu Gly Glu Leu Arg Glu Lys Val Gly Glu Cys Glu Ala		
130	135	140
Ser Ala Met Leu Pro Leu Glu Cys Gln Tyr Leu Asn Lys Asn Ala Leu		
145	150	155
Thr Thr Leu Ala Gly Pro Leu Thr Pro Pro Val Lys His Phe Gln Leu		
165	170	175
Lys Arg Lys Pro Lys Ser Ala Thr Leu Arg Ala Glu Leu Leu Gln Lys		
180	185	190
Ser Thr Glu Thr Ala Gln Gln Leu Lys Arg Ser Ala Gly Val Pro Phe		
195	200	205
His Ala Lys Gly Arg Gly Leu Leu Arg Lys Met Asp Thr Thr Thr Pro		
210	215	220
Leu Lys Gly Ile Pro Lys Gln Ala Pro Phe Arg Ser Pro Thr Ala Pro		
225	230	235
Ser Val Phe Ser Pro Thr Gly Asn Arg Thr Pro Ile Pro Pro Ser Arg		
245	250	255
Thr Leu Leu Arg Lys Glu Arg Gly Val Lys Leu Leu Asp Ile Ser Glu		
260	265	270

Leu Asp Met Val Gly Ala Gly Arg Glu Ala Lys Arg Arg Arg Lys Thr  
275 280 285  
Leu Asp Ala Glu Val Val Glu Lys Pro Ala Lys Glu Glu Thr Val Val  
290 295 300  
Glu Asn Ala Thr Pro Asp Tyr Ala Ala Gly Leu Val Ser Thr Gln Lys  
305 310 315 320  
Leu Gly Ser Leu Asn Asn Glu Pro Ala Leu Pro Ser Thr Ser Tyr Leu  
325 330 335  
Pro Ser Thr Pro Ser Val Val Pro Ala Ser Ser Tyr Ile Pro Ser Ser  
340 345 350  
Glu Thr Pro Pro Ala Pro Ser Ser Arg Glu Ala Ser Arg Pro Pro Glu  
355 360 365  
Glu Pro Ser Ala Pro Ser Pro Thr Leu Pro Ala Gln Phe Lys Gln Arg  
370 375 380  
Ala Pro Met Tyr Asn Ser Gly Leu Ser Pro Ala Thr Pro Thr Pro Ala  
385 390 395 400  
Ala Pro Thr Ser Pro Leu Thr Pro Thr Thr Pro Pro Ala Val Ala Pro  
405 410 415  
Thr Thr Gln Thr Pro Pro Val Ala Met Val Ala Pro Gln Thr Gln Ala  
420 425 430  
Pro Ala Gln Gln Gln Pro Lys Lys Asn Leu Ser Leu Thr Arg Glu Gln  
435 440 445  
Met Phe Ala Ala Gln Glu Met Phe Lys Thr Ala Asn Lys Val Thr Arg  
450 455 460  
Pro Glu Lys Ala Leu Ile Leu Gly Phe Met Ala Gly Ser Arg Glu Asn  
465 470 475 480  
Pro Cys Gln Glu Gln Gly Asp Val Ile Gln Ile Lys Leu Ser Glu His  
485 490 495  
Thr Glu Asp Leu Pro Lys Ala Asp Gly Gln Gly Ser Thr Thr Met Leu

500                      505                      510  
 Val Asp Thr Val Phe Glu Met Asn Tyr Ala Thr Gly Gln Trp Thr Arg  
 515                      520                      525  
 Phe Lys Lys Tyr Lys Pro Met Thr Asn Val Ser  
 530                      535

<210> 3927

<211> 712

<212> PRT

<213> Homo sapiens

<400> 3927

Met Leu Lys Asp Tyr Leu Ser Val Ala Arg Asp Ala Leu Arg Thr Gln  
 1                      5                      10                      15  
 Lys Glu Leu Tyr His Val Lys Glu Gln Arg Leu Ala Leu Ala Leu Asp  
 20                      25                      30  
 Glu Tyr Val Arg Leu Asn Asp Ala Tyr Lys Glu Lys Ser Ser Ser His  
 35                      40                      45  
 Thr Ser Leu Phe Ser Gly Ser Ser Ser Ser Thr Lys Tyr Asp Pro Asp  
 50                      55                      60  
 Ile Leu Lys Ala Glu Ile Ser Thr Thr Arg Leu Arg Val Lys Glu Leu  
 65                      70                      75                      80  
 Lys Arg Glu Leu Ser Gln Met Lys Gln Glu Leu Leu Tyr Lys Glu Gln  
 85                      90                      95  
 Gly Phe Glu Thr Leu Gln Gln Ile Asp Lys Lys Met Ser Gly Gly Gln  
 100                      105                      110  
 Ser Gly Tyr Glu Leu Ser Glu Ala Lys Ala Ile Leu Thr Glu Leu Lys  
 115                      120                      125

Ser Ile Arg Lys Ala Ile Ser Ser Gly Glu Lys Glu Lys Gln Asp Leu  
 130 135 140  
 Met Gln Ser Leu Ala Lys Leu Gln Glu Arg Phe His Leu Asp Gln Asn  
 145 150 155 160  
 Ile Gly Arg Ser Glu Pro Asp Leu Arg Cys Ser Pro Val Asn Ser His  
 165 170 175  
 Leu Cys Leu Ser Arg Gln Thr Leu Asp Ala Gly Ser Gln Thr Ser Ile  
 180 185 190  
 Ser Gly Asp Ile Gly Val Arg Ser Arg Ser Asn Leu Ala Glu Lys Val  
 195 200 205  
 Arg Leu Ser Leu Gln Tyr Glu Glu Ala Lys Arg Ser Met Ala Asn Leu  
 210 215 220  
 Lys Ile Glu Leu Ser Lys Leu Asp Ser Glu Ala Trp Pro Gly Ala Leu  
 225 230 235 240  
 Asp Ile Glu Lys Glu Lys Leu Met Leu Ile Asn Glu Lys Glu Glu Leu  
 245 250 255  
 Leu Lys Glu Leu Gln Phe Val Thr Pro Gln Lys Arg Thr Gln Asp Glu  
 260 265 270  
 Leu Glu Arg Leu Glu Ala Glu Arg Gln Arg Leu Glu Glu Glu Leu Leu  
 275 280 285  
 Ser Val Arg Gly Thr Pro Ser Arg Ala Leu Ala Glu Arg Leu Arg Leu  
 290 295 300  
 Glu Glu Arg Arg Lys Glu Leu Leu Gln Lys Leu Glu Glu Thr Thr Lys  
 305 310 315 320  
 Leu Thr Thr Tyr Leu His Ser Gln Leu Lys Ser Leu Ser Ala Ser Thr  
 325 330 335  
 Leu Ser Met Ser Ser Gly Ser Ser Leu Gly Ser Leu Ala Ser Ser Arg  
 340 345 350  
 Gly Ser Leu Asn Thr Ser Ser Arg Gly Ser Leu Asn Ser Leu Ser Ser

355 360 365  
Thr Glu Leu Tyr Tyr Ser Ser Gln Ser Asp Gln Ile Asp Val Asp Tyr  
370 375 380  
Gln Tyr Lys Leu Asp Phe Leu Leu Gln Glu Lys Ser Gly Tyr Ile Pro  
385 390 395 400  
Ser Gly Pro Ile Thr Thr Ile His Glu Asn Glu Val Val Lys Ser Pro  
405 410 415  
Ser Gln Pro Gly Gln Ser Gly Leu Cys Gly Val Ala Ala Ala Ala Thr  
420 425 430  
Gly His Thr Pro Pro Leu Ala Glu Ala Pro Lys Ser Val Ala Ser Leu  
435 440 445  
Ser Ser Arg Ser Ser Leu Ser Ser Leu Ser Pro Pro Gly Ser Pro Leu  
450 455 460  
Val Leu Glu Gly Thr Phe Pro Met Ser Ser Ser His Asp Ala Ser Leu  
465 470 475 480  
His Gln Phe Thr Ala Asp Phe Glu Asp Cys Glu Leu Ser Ser His Phe  
485 490 495  
Ala Asp Ile Ser Leu Ile Glu Asn Gln Ile Leu Leu Asp Ser Asp Ser  
500 505 510  
Gly Gly Ala Ser Gln Ser Leu Ser Glu Asp Lys Asp Leu Asn Glu Cys  
515 520 525  
Ala Arg Glu Pro Leu Tyr Glu Gly Thr Ala Asp Val Glu Lys Ser Leu  
530 535 540  
Pro Lys Arg Arg Val Ile His Leu Leu Gly Glu Lys Thr Thr Cys Val  
545 550 555 560  
Ser Ala Ala Val Ser Asp Glu Ser Val Ala Gly Asp Ser Gly Val Tyr  
565 570 575  
Glu Ala Phe Val Lys Gln Pro Ser Glu Met Glu Asp Val Thr Tyr Ser  
580 585 590

Glu Glu Asp Val Ala Ile Val Glu Thr Ala Gln Val Gln Ile Gly Leu  
                   595                                600                                605  
 Arg Tyr Asn Ala Lys Ser Ser Ser Phe Met Val Ile Ile Ala Gln Leu  
                   610                                615                                620  
 Arg Asn Leu His Ala Phe Leu Ile Pro His Thr Ser Lys Val Tyr Phe  
                   625                                630                                635                                640  
 Arg Val Ala Val Leu Pro Ser Ser Thr Asp Val Ser Cys Leu Phe Arg  
                                 645                                650                                655  
 Thr Lys Val His Pro Pro Thr Glu Ser Ile Leu Phe Asn Asp Val Phe  
                                 660                                665                                670  
 Arg Val Ala Ile Ser Gln Thr Ala Leu Gln Gln Lys Thr Leu Arg Lys  
                   675                                680                                685  
 Asn Phe Thr Phe Val Thr Ala Ile Thr His Gly Val Cys Leu Pro Leu  
                   690                                695                                700  
 Pro Val Pro Met Pro Ser Phe Ala  
                   705                                710

<210> 3928

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3928

Met Gly Ser His Tyr Val Ala Gln Val Gly Val Gln Trp Leu Phe Ile  
           1                                5                                10                                15  
 Gly Met Val Ile Val His Cys Ser Leu Glu Leu Val Ala Ser Ser Asp  
                                 20                                25                                30  
 Arg Pro Ala Ser Ala Ser Arg Val Ala Arg Thr Ile Tyr Ala His Pro



35                      40                      45  
 Phe Ala Trp Leu Lys Leu Tyr Ser Phe Cys Ser Tyr Pro His Pro Cys  
 50                      55                      60  
 Val Phe Ile Ser Arg Lys Ser Thr Ile Ser Phe Ile His Met Gly Leu  
 65                      70                      75                      80  
 Thr Ile Ser Tyr His Gln Ser Ser Gly Val Met Asn Gly Met Leu Leu  
 85                      90                      95  
 Phe Tyr Leu Tyr  
 100

<210> 3929

<211> 933

<212> PRT

<213> Homo sapiens

<400> 3929

Met Ser Cys Ser Leu Leu Pro Ala Leu Pro Leu Val Pro Pro Gly Thr  
 1                      5                      10                      15  
 His Asn Pro Ile Lys Thr Asn Trp Met Ala Trp His Gly Gly Ser Cys  
 20                      25                      30  
 Leu Ser Ser Gln His Tyr Gly Gly Pro Arg Arg Val Asp His Leu Arg  
 35                      40                      45  
 Ser Gly Val Gln Asp Gln Pro Asp Gln His Gly Glu Thr Leu Ser Val  
 50                      55                      60  
 Leu Lys Ile Lys Lys Lys Leu Ala Arg Cys Gly Gly Val Arg Leu Gly  
 65                      70                      75                      80  
 Arg Leu Arg Gln Glu Asn Arg Leu Asn Thr Ala Thr Ser Leu Thr Ala  
 85                      90                      95

Glu Gly Ala Val Ser Gln Asp His Ala Thr Ala Leu Gln Pro Gly Arg  
 100 105 110  
 Gln Ser Lys Thr Leu Ser Gln Arg Asn Lys Thr Asn Trp Arg Pro Pro  
 115 120 125  
 Gln Val Ala Gly Ser Gly Glu Gly Leu His Leu Cys Thr Pro Pro Trp  
 130 135 140  
 Leu Ser Val Ala Asp Pro Gln Ala Phe Asn Val Val Phe Glu Lys Ala  
 145 150 155 160  
 Ile Gln Arg Thr Thr Pro Ala Asn Glu Val Lys Gln Arg Val Ile Asn  
 165 170 175  
 Leu Thr Asp Glu Ile Thr Tyr Ser Val Tyr Met Tyr Thr Ala Arg Gly  
 180 185 190  
 Leu Phe Glu Arg Asp Lys Leu Ile Phe Leu Ala Gln Val Thr Phe Gln  
 195 200 205  
 Val Leu Ser Met Lys Lys Glu Leu Asn Pro Val Glu Leu Asp Phe Leu  
 210 215 220  
 Leu Arg Phe Pro Phe Lys Ala Gly Val Val Ser Pro Val Asp Phe Leu  
 225 230 235 240  
 Gln His Gln Gly Trp Gly Gly Ile Lys Ala Leu Ser Glu Met Asp Glu  
 245 250 255  
 Phe Lys Asn Leu Asp Ser Asp Ile Glu Gly Ser Ala Lys Arg Trp Lys  
 260 265 270  
 Lys Leu Val Glu Ser Glu Ala Pro Glu Lys Glu Ile Phe Pro Lys Glu  
 275 280 285  
 Trp Lys Asn Lys Thr Ala Leu Gln Lys Leu Cys Met Val Arg Cys Leu  
 290 295 300  
 Arg Pro Asp Arg Met Thr Tyr Ala Ile Lys Asn Phe Val Glu Glu Lys  
 305 310 315 320  
 Met Gly Ser Lys Phe Val Glu Gly Arg Ser Val Glu Phe Ser Lys Ser

	325		330		335
Tyr	Glu	Glu	Ser	Ser	Pro
Ser	Thr	Ser	Ile	Phe	Phe
Ile	Leu	Ser	Pro		
	340		345		350
Gly	Val	Asp	Pro	Leu	Lys
Asp	Val	Glu	Ala	Leu	Gly
Lys	Lys	Lys	Leu	Gly	
	355		360		365
Phe	Thr	Ile	Asp	Asn	Gly
Lys	Leu	His	Asn	Val	Ser
Leu	Gly	Gln	Gly		
	370		375		380
Gln	Glu	Val	Val	Ala	Glu
Asn	Ala	Leu	Asp	Val	Ala
Ala	Glu	Lys	Gly		
	385		390		395
					400
His	Trp	Val	Ile	Leu	Gln
Asn	Ile	His	Leu	Val	Ala
Arg	Trp	Leu	Gly		
	405		410		415
Thr	Leu	Asp	Lys	Lys	Leu
Glu	Arg	Tyr	Ser	Thr	Gly
Ser	His	Glu	Asp		
	420		425		430
Tyr	Arg	Val	Phe	Ile	Ser
Ala	Glu	Pro	Ala	Pro	Ser
Pro	Glu	Thr	His		
	435		440		445
Ile	Ile	Pro	Gln	Gly	Ile
Leu	Glu	Asn	Ala	Ile	Lys
Ile	Thr	Asn	Glu		
	450		455		460
Pro	Pro	Thr	Gly	Met	His
Ala	Asn	Leu	His	Lys	Ala
Leu	Asp	Leu	Phe		
	465		470		475
					480
Thr	Gln	Asp	Thr	Leu	Glu
Met	Cys	Thr	Lys	Glu	Met
Glu	Phe	Lys	Cys		
	485		490		495
Met	Leu	Phe	Ala	Leu	Cys
Tyr	Phe	His	Ala	Val	Val
Ala	Glu	Arg	Arg		
	500		505		510
Lys	Phe	Gly	Ala	Gln	Gly
Trp	Asn	Arg	Ser	Tyr	Pro
Phe	Asn	Asn	Gly		
	515		520		525
Asp	Leu	Thr	Ile	Ser	Ile
Asn	Val	Leu	Tyr	Asn	Tyr
Leu	Glu	Ala	Asn		
	530		535		540
Pro	Lys	Val	Pro	Trp	Asp
Asp	Leu	Arg	Tyr	Leu	Phe
Gly	Glu	Ile	Met		
	545		550		555
					560

Tyr Gly Gly His Ile Thr Asp Asp Trp Asp Arg Arg Leu Cys Arg Thr  
565 570 575

Tyr Leu Ala Glu Tyr Ile Arg Thr Glu Met Leu Glu Gly Asp Val Leu  
580 585 590

Leu Ala Pro Gly Phe Gln Ile Pro Pro Asn Leu Asp Tyr Lys Gly Tyr  
595 600 605

His Glu Tyr Ile Asp Glu Asn Leu Pro Pro Glu Ser Pro Tyr Leu Tyr  
610 615 620

Gly Leu His Pro Asn Ala Glu Ile Gly Phe Leu Thr Val Thr Ser Glu  
625 630 635 640

Lys Leu Phe Arg Thr Val Leu Glu Met Gln Pro Lys Glu Thr Asp Ser  
645 650 655

Gly Ala Gly Thr Gly Val Ser Arg Glu Glu Lys Val Lys Ala Val Leu  
660 665 670

Asp Asp Ile Leu Glu Lys Ile Pro Glu Thr Phe Asn Met Ala Glu Ile  
675 680 685

Met Ala Lys Ala Ala Glu Lys Thr Pro Tyr Val Val Val Ala Phe Gln  
690 695 700

Glu Cys Glu Arg Met Asn Ile Leu Thr Asn Glu Met Arg Arg Ser Leu  
705 710 715 720

Lys Glu Leu Asn Leu Gly Leu Lys Gly Glu Leu Thr Ile Thr Thr Asp  
725 730 735

Val Glu Asp Leu Ser Thr Ala Leu Phe Tyr Asp Thr Val Pro Asp Thr  
740 745 750

Trp Val Ala Arg Ala Tyr Pro Ser Met Met Gly Leu Ala Ala Trp Tyr  
755 760 765

Ala Asp Leu Leu Leu Arg Ile Arg Glu Leu Glu Ala Trp Thr Thr Asp  
770 775 780

Phe Ala Leu Pro Thr Thr Val Trp Leu Ala Gly Phe Phe Asn Pro Gln

785                      790                      795                      800  
 Ser Phe Leu Thr Ala Ile Met Gln Ser Met Ala Arg Lys Asn Glu Trp  
                             805                      810                      815  
 Pro Leu Asp Lys Met Cys Leu Ser Val Glu Val Thr Lys Lys Asn Arg  
                             820                      825                      830  
 Glu Asp Met Thr Ala Pro Pro Arg Glu Gly Ser Tyr Val Tyr Gly Leu  
                             835                      840                      845  
 Phe Met Glu Gly Ala Arg Trp Asp Thr Gln Thr Gly Val Ile Ala Glu  
                             850                      855                      860  
 Ala Arg Leu Lys Glu Leu Thr Pro Ala Met Pro Val Ile Phe Ile Lys  
 865                      870                      875                      880  
 Ala Ile Pro Val Asp Arg Met Glu Thr Lys Asn Ile Tyr Glu Cys Pro  
                             885                      890                      895  
 Val Tyr Lys Thr Arg Ile Arg Gly Pro Thr Tyr Val Trp Thr Phe Asn  
                             900                      905                      910  
 Leu Lys Thr Lys Glu Lys Ala Ala Lys Trp Ile Leu Ala Ala Val Ala  
                             915                      920                      925  
 Leu Leu Leu Gln Val  
                             930

&lt;210&gt; 3930

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3930

Met Glu Ser Arg Ser Val Ala Gln Ala Gly Val Gln Trp Asp Asn Phe  
 1                      5                      10                      15

Ser Ser Leu Gln Pro Pro Pro Pro Gly Phe Glu Arg Phe Ser Cys Leu  
                     20                    25                    30  
 Ser Leu Pro Ser Ser Trp Asp Cys Met Arg Pro Pro Pro His Leu Ala  
                     35                    40                    45  
 Asn Phe Cys Ile Phe Ser Gly Asp Gly Val Ser Pro Arg Trp Pro Gly  
                     50                    55                    60  
 Arg Tyr Arg Thr Pro Asp Leu Arg Arg Ser Thr Arg Leu Gly Leu Pro  
                     65                    70                    75                    80  
 Arg Cys Trp Asp Tyr Arg Arg Glu Thr Gln Arg Leu Ala Cys Pro Phe  
                                     85                    90                    95  
 Tyr Val Leu Pro Ser Phe Leu Phe Phe Ser Phe Leu  
                     100                    105

&lt;210&gt; 3931

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3931

Met Ser Arg Gly Cys Ser Ser Asp Leu Arg Phe His Thr Trp Leu Gly  
           1                    5                    10                    15  
 Leu Arg Met Leu Lys Asn Ile Ile Ala Val Ala Leu Leu Met Leu Gly  
                     20                    25                    30  
 Lys Asn Glu Lys Glu Ala Pro Ala Pro Pro Met Glu Pro Glu Val Pro  
                     35                    40                    45  
 Glu Met Ser Gln Ser Lys Thr Glu His Met Lys Thr Pro Glu Glu Glu  
                     50                    55                    60  
 Leu Gln Pro Glu Ser Ser Pro Ala Glu Thr Ser Ala Cys Lys Asp Pro

65                      70                      75                      80  
 Leu Lys Pro Leu Lys Ile Arg Pro Val Ser Gln Pro Phe Val Asn Pro  
                             85                      90                      95  
 Ala Val Lys Asn Lys Ala Glu Glu Cys Glu Thr Trp Ile Asp Arg Phe  
                             100                      105                      110  
 Arg Lys Leu Glu Asn Ala Leu Tyr Leu Cys Asp Leu Ser Asn Thr Gly  
                             115                      120                      125  
 Val Leu Glu Lys Glu Arg Ala Arg Arg Leu Ile His Asn Tyr Asn Leu  
                             130                      135                      140  
 Ile Tyr Asn Leu Ser Leu Ser Pro Gln Lys Ile Asp Gln Ala Leu Arg  
 145                      150                      155                      160  
 Arg Phe Arg Ser Gly Glu Asn Met Leu Leu Glu Pro Ala Leu Arg Tyr  
                             165                      170                      175  
 Leu Lys Glu Leu  
                             180

<210> 3932

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3932

Met Lys Trp Gln Arg Met Leu Cys Val His Gln Ile Pro Ser Cys Leu  
   1                      5                      10                      15  
 Pro Glu Tyr Ser Asp Tyr Asn Ser Gln Ser Pro Leu Tyr Leu Asp Gly  
                             20                      25                      30  
 Ala Val Glu Leu Phe Cys Gly Leu Cys Ser Val Gly Gly Ser Gly Ile  
                             35                      40                      45

Asn Leu Leu Cys Ser Pro Asn Ser Leu Ser Leu Cys Trp Arg Asp Val  
 50 55 60  
 Gly Asp Leu Met Glu Asp Ala Glu Val Leu Gly Asp Val Arg Ala Met  
 65 70 75 80  
 Arg Trp Lys Ser Pro Gly Pro Arg Val Thr Val Trp Asn Arg Asp Pro  
 85 90 95  
 Thr Ala Leu Glu His Glu Ile Ser Glu Lys  
 100 105

<210> 3933

<211> 656

<212> PRT

<213> Homo sapiens

<400> 3933

Met Ala Val Pro Met Pro Ser Lys Arg Arg Ser Leu Val Val Gln Thr  
 1 5 10 15  
 Ser Met Asp Ala Tyr Thr Pro Pro Asp Thr Ser Ser Gly Ser Glu Asp  
 20 25 30  
 Glu Gly Ser Val Gln Gly Asp Pro Gln Gly Thr Pro Thr Ser Ser Gln  
 35 40 45  
 Gly Ser Ile Asn Met Glu His Trp Ile Ser Gln Ala Ile His Gly Ser  
 50 55 60  
 Thr Thr Ser Thr Thr Ser Ser Ser Ser Thr Gln Ser Gly Gly Ser Gly  
 65 70 75 80  
 Ala Ala His Arg Leu Ala Asp Val Met Ala Gln Thr His Ile Glu Asn  
 85 90 95  
 His Ser Ala Pro Pro Asp Val Thr Thr Tyr Thr Ser Glu His Ser Ile



100 105 110  
Gln Val Glu Arg Pro Gln Gly Ser Thr Gly Ser Arg Thr Ala Pro Lys  
115 120 125  
Tyr Gly Asn Ala Glu Leu Met Glu Thr Gly Asp Gly Val Pro Val Ser  
130 135 140  
Ser Arg Val Ser Ala Lys Ile Gln Gln Leu Val Asn Thr Leu Lys Arg  
145 150 155 160  
Pro Lys Arg Pro Pro Leu Arg Glu Phe Phe Val Asp Asp Phe Glu Glu  
165 170 175  
Leu Leu Glu Val Gln Gln Pro Asp Pro Asn Gln Pro Lys Pro Glu Gly  
180 185 190  
Ala Gln Met Leu Ala Met Arg Gly Glu Gln Leu Gly Val Val Thr Asn  
195 200 205  
Trp Pro Pro Ser Leu Glu Ala Ala Leu Gln Arg Trp Gly Thr Ile Ser  
210 215 220  
Pro Lys Ala Pro Cys Leu Thr Thr Met Asp Thr Asn Gly Lys Pro Leu  
225 230 235 240  
Tyr Ile Leu Thr Tyr Gly Lys Leu Trp Thr Arg Ser Met Lys Val Ala  
245 250 255  
Tyr Ser Ile Leu His Lys Leu Gly Thr Lys Gln Glu Pro Met Val Arg  
260 265 270  
Pro Gly Asp Arg Val Ala Leu Val Phe Pro Asn Asn Asp Pro Ala Ala  
275 280 285  
Phe Met Ala Ala Phe Tyr Gly Cys Leu Leu Ala Glu Val Val Pro Val  
290 295 300  
Pro Ile Glu Val Pro Leu Thr Arg Lys Asp Ala Gly Ser Gln Gln Ile  
305 310 315 320  
Gly Phe Leu Leu Gly Ser Cys Gly Val Thr Val Ala Leu Thr Ser Asp  
325 330 335

Ala Cys His Lys Gly Leu Pro Lys Ser Pro Thr Gly Glu Ile Pro Gln  
340 345 350  
Phe Lys Gly Trp Pro Lys Leu Leu Trp Phe Val Thr Glu Ser Lys His  
355 360 365  
Leu Ser Lys Pro Pro Arg Asp Trp Phe Pro His Ile Lys Asp Ala Asn  
370 375 380  
Asn Asp Thr Ala Tyr Ile Glu Tyr Lys Thr Cys Lys Asp Gly Ser Val  
385 390 395 400  
Leu Gly Val Thr Val Thr Arg Thr Ala Leu Leu Thr His Cys Gln Ala  
405 410 415  
Leu Thr Gln Ala Cys Gly Tyr Thr Glu Ala Glu Thr Ile Val Asn Val  
420 425 430  
Leu Asp Phe Lys Lys Asp Val Gly Leu Trp His Gly Ile Leu Thr Ser  
435 440 445  
Val Met Asn Met Met His Val Ile Ser Ile Pro Tyr Ser Leu Met Lys  
450 455 460  
Val Asn Pro Leu Ser Trp Ile Gln Lys Val Cys Gln Tyr Lys Ala Lys  
465 470 475 480  
Val Ala Cys Val Lys Ser Arg Asp Met His Trp Ala Leu Val Ala His  
485 490 495  
Arg Asp Gln Arg Tyr Ile Asn Leu Ser Ser Leu Arg Met Leu Ile Val  
500 505 510  
Ala Asp Gly Ala Asn Pro Trp Ser Ile Ser Ser Cys Asp Ala Phe Leu  
515 520 525  
Asn Val Phe Gln Ser Lys Gly Leu Arg Gln Glu Val Ile Cys Pro Cys  
530 535 540  
Ala Ser Ser Pro Glu Ala Leu Thr Val Ala Ile Arg Arg Pro Thr Asp  
545 550 555 560  
Asp Ser Asn Gln Pro Pro Gly Arg Gly Val Leu Ser Met His Gly Leu

	565		570		575										
Thr	Tyr	Gly	Val	Ile	Arg	Val	Asp	Ser	Glu	Glu	Lys	Leu	Ser	Val	Leu
	580		585		590										
Thr	Val	Gln	Asp	Val	Gly	Leu	Val	Met	Pro	Gly	Ala	Ile	Met	Cys	Ser
	595		600		605										
Val	Lys	Pro	Asp	Gly	Val	Pro	Gln	Leu	Cys	Arg	Thr	Asp	Glu	Ile	Gly
	610		615		620										
Glu	Leu	Cys	Val	Cys	Ala	Val	Ala	Thr	Gly	Thr	Ser	Tyr	Tyr	Gly	Leu
	625		630		635										
Ser	Gly	Met	Thr	Lys	Asn	Thr	Phe	Glu	His	Thr	Ser	Asn	Lys	Gly	Lys
	645		650		655										

&lt;210&gt; 3934

&lt;211&gt; 181

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3934

Met	Leu	Ile	Met	Tyr	Glu	Gln	Arg	Lys	Asp	Ile	Lys	Leu	Glu	Leu	Thr
1			5					10				15			
Phe	Lys	Gly	Glu	Ala	Lys	His	Lys	Arg	Leu	Lys	Asn	Leu	Gln	Thr	Ser
			20					25				30			
His	Val	Val	Glu	Lys	Lys	Ser	Pro	Phe	Ser	Gly	Glu	Gln	Phe	Arg	Leu
			35					40				45			
Ala	Ala	Glu	Ile	Cys	Ile	Ala	Lys	Arg	Lys	Ala	His	Ala	Asp	Ser	His
			50					55				60			
Asp	Asn	Gly	Gly	Asn	Ala	Ser	Lys	Ala	Phe	Gln	Arg	Ser	Leu	Trp	Gln
			65					70				75			80

Pro Leu Pro Ser Gln Ala Trp Arg Pro Gly Arg Thr Glu Trp Phe Cys  
                             85                            90                            95  
 Gly Pro His Leu Glu Pro Asp Tyr Pro Val Gln Ala Trp Asp Thr Ala  
                             100                            105                            110  
 Pro Cys Ile Pro Ala Ile Leu Ala Pro Ala Val Ala Gln Arg Gly Pro  
                             115                            120                            125  
 Gly Thr Ala Trp Ala Thr Ala Ser Glu Gly Ala Asn His Lys Pro Trp  
                             130                            135                            140  
 Trp Phe Pro His Ala Val Lys Pro Val Gly Met Gln Ser Ala Arg Val  
                             145                            150                            155                            160  
 Glu Ala Trp Glu Pro Pro Pro Gly Phe Gln Arg Met Cys Gly Lys Ala  
                             165                            170                            175  
 Trp Met Ser Arg Gln  
                             180

&lt;210&gt; 3935

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3935

Met Ala Cys Arg Glu Arg Ile Gly Asp Asn Ser Gly Pro Gln Arg Arg  
           1                            5                            10                            15  
 Ala Ala Thr Glu Gly Glu Ala Gly Glu Arg Ala Ala Ala Pro Ala Leu  
                             20                            25                            30  
 Gly Arg Val Leu Trp Ser Thr Gln Lys Asp Cys Pro Gly Ser Lys Gly  
                             35                            40                            45  
 Pro Glu Glu Lys Ala Ala Leu Gly Ser Ala Pro Pro Ala Gly Ser Leu

50                      55                      60  
 Leu Pro Arg Glu Ala Glu Arg Cys Pro Pro Thr Arg Arg Ala Leu Cys  
 65                      70                      75                      80  
 Tyr Pro Val Leu Ser Gly Phe Ala Glu Pro Ser Thr Thr Gln Pro Arg  
                     85                      90                      95  
 Pro Pro Glu Lys Thr Pro Leu Thr Pro Thr Ser Cys His Pro Thr Ala  
                     100                      105                      110  
 Cys Trp Gly Asp Arg Pro Gln Cys Leu Ile His Gly Leu Leu Arg Arg  
                     115                      120                      125  
 Phe

&lt;210&gt; 3936

&lt;211&gt; 533

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3936

Met Leu Pro Arg Gln Ala Ser Ile Ser Cys Ala Gln Gly Ile Leu Leu  
 1                      5                      10                      15  
 Pro Gln Pro Ser Glu Leu Leu Arg Leu Gln Leu Asn Leu Val Met Asn  
                     20                      25                      30  
 Glu Gln Lys Glu Lys Ile Thr Glu Lys Val Ile Leu Ser Met Thr Ala  
                     35                      40                      45  
 Lys Glu His His Lys Glu Gln Glu Glu Val Ser Arg Arg Ile Asp Glu  
                     50                      55                      60  
 Leu Gln Thr Ala Ile Lys Ser Asn Ile Gly His Leu Cys Lys Leu Gly  
 65                      70                      75                      80

Pro	Gln	Leu	Gln	Ala	Glu	Gln	Glu	Gln	Phe	Ser	Ser	Tyr	Val	Tyr	Gln
					85				90						95
His	Ile	Lys	Ser	Leu	Pro	Ala	Asn	Thr	Leu	Val	Pro	Gly	Gly	Leu	Gln
					100				105						110
Leu	Lys	Val	Phe	Glu	Asn	Gly	Lys	Asn	Thr	Gly	Glu	Ile	Ser	Val	Gly
					115				120						125
Ile	Ser	Lys	Lys	Asp	Leu	Gly	Ser	Asp	Ser	Pro	Ile	Gln	Thr	Asp	His
					130				135						140
Met	Met	Glu	Arg	Leu	Leu	Leu	Lys	Ile	His	Gln	Arg	Leu	Gln	Gly	Ser
					145				150						155
Ser	Ile	Asn	Pro	Pro	Gly	Leu	Asn	Tyr	Ser	Ser	Met	Arg	Leu	Phe	Asp
					165				170						175
Glu	Asn	Gly	Gln	Glu	Ile	Lys	Asn	Pro	Leu	Ser	Leu	Lys	Asn	Glu	Gln
					180				185						190
Lys	Ile	Trp	Val	Ser	Tyr	Gly	Arg	Ala	Tyr	Arg	Ser	Pro	Leu	Asn	Leu
					195				200						205
Ala	Leu	Gly	Leu	Thr	Phe	Asp	Arg	Val	Ser	Ala	Phe	Ala	Arg	Gly	Asp
					210				215						220
Ile	Met	Val	Ala	Tyr	Lys	Thr	Phe	Leu	Asp	Pro	Asn	Ala	Val	Leu	Leu
					225				230						235
Pro	Gly	Cys	Gly	Asn	Trp	Glu	Val	Cys	Glu	Gly	Phe	Pro	Ile	Asn	Phe
					245				250						255
Asn	Cys	Thr	Ser	Gln	Gln	Ile	Pro	Asp	Gln	Phe	Glu	Lys	Val	Asp	Leu
					260				265						270
Glu	Asn	His	Phe	Leu	Gln	Asn	Lys	Val	Asp	Pro	Asn	Ile	Val	Leu	His
					275				280						285
Ala	Ser	Val	Ser	Ile	Gly	Lys	Trp	Ser	Phe	Ser	Gly	Ser	Glu	Ala	Ser
					290				295						300
Ser	Arg	Ser	Gln	Ile	Ala	Pro	Ser	Ile	Leu	Trp	Pro	Val	Ala	Ser	Val

305                      310                      315                      320  
Trp Leu Ile Thr Lys Thr Gly Met Ile Leu Ser Arg Ala Ile Thr Gln  
                         325                      330                      335  
Gly Cys Leu Ala Ile Gly His Pro Ile Arg Val Lys Ala Ala Glu Gly  
                         340                      345                      350  
Thr Ser Leu Glu Gly Tyr Lys Leu Ile Leu Gln Lys Arg His Ser Gly  
                         355                      360                      365  
Asp Asp Ser Gln Lys Trp Val Phe Gly Thr Asp Gly Cys Ile Tyr Ser  
                         370                      375                      380  
Lys Ala Tyr Pro Gln Phe Val Leu Thr Tyr Leu Glu Glu Leu Asn Ala  
385                      390                      395                      400  
Gln Val Asp Val Thr Gln Thr Glu Tyr His Ile His His Gly Ala Trp  
                         405                      410                      415  
Thr Thr Ala His Gln Glu His Gly Arg Asn Leu Ala Glu Glu Val Leu  
                         420                      425                      430  
Gln Glu Ser Ala Ser Asn Leu Gly Leu Lys Gln Leu Pro Glu Pro Ser  
                         435                      440                      445  
Asp Thr His Leu Met Pro Glu Gly Ser Leu Glu Glu Thr Gly Glu Leu  
                         450                      455                      460  
Thr Val Ala Leu Val Arg Lys Leu Glu Glu Lys His Pro Lys Ala Ser  
465                      470                      475                      480  
Ala Gln Arg Trp Ala Ile Lys His Glu Gly Thr Ser Lys Pro Gly Gln  
                         485                      490                      495  
Trp Lys His Ser Arg Val Glu Asn Pro Leu Trp Asn Lys Leu Thr Tyr  
                         500                      505                      510  
Met Trp Pro Val Leu Pro Ser Gly Gln Leu Asn Glu Ala Met Gln Thr  
                         515                      520                      525  
Glu Gln Gly Arg Arg  
530

&lt;210&gt; 3937

&lt;211&gt; 234

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3937

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Met Leu Thr Thr Asp Asp Lys Ala Val Val Leu Lys Arg Ile His Glu
  1             5             10             15
Val His Val Lys Met Asp Arg Ser Leu Glu Tyr Gln Pro Val Glu Cys
          20             25             30
Ala Ile Val Ile Asn Ala Ala Gly Ala Trp Ser Ala Gln Ile Ala Ala
          35             40             45
Leu Ala Gly Val Gly Glu Gly Pro Pro Gly Thr Leu Gln Gly Thr Lys
          50             55             60
Leu Pro Val Glu Pro Arg Lys Arg Tyr Val Tyr Val Trp His Cys Pro
          65             70             75             80
Gln Gly Pro Gly Leu Glu Thr Pro Leu Val Ala Asp Thr Ser Gly Ala
          85             90             95
Tyr Phe Arg Arg Glu Gly Leu Gly Ser Asn Tyr Leu Gly Gly Arg Ser
          100            105            110
Pro Thr Glu Gln Glu Glu Pro Asp Pro Ala Asn Leu Glu Val Asp His
          115            120            125
Asp Phe Phe Gln Asp Lys Val Trp Pro His Leu Ala Leu Arg Val Pro
          130            135            140
Ala Phe Glu Thr Leu Lys Val Gln Ser Ala Trp Ala Gly Tyr Tyr Asp
          145            150            155            160
Tyr Asn Thr Phe Asp Gln Asn Gly Val Val Gly Pro His Pro Leu Val

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165 170 175  
Val Asn Met Tyr Phe Ala Thr Gly Phe Ser Gly His Gly Leu Gln Gln  
180 185 190  
Ala Pro Gly Ile Gly Arg Ala Val Ala Glu Met Val Leu Lys Gly Arg  
195 200 205  
Phe Gln Thr Ile Asp Leu Ser Pro Phe Leu Phe Thr Arg Phe Tyr Leu  
210 215 220  
Gly Glu Lys Ile Gln Glu Asn Asn Ile Ile  
225 230

&lt;210&gt; 3938

&lt;211&gt; 232

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3938

Met Ala Asn Tyr Tyr Glu Val Leu Gly Val Gln Ala Ser Ala Ser Pro  
1 5 10 15  
Glu Asp Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Arg Trp His Pro  
20 25 30  
Asp Lys Asn Pro Asp Asn Lys Glu Glu Ala Glu Lys Lys Phe Lys Leu  
35 40 45  
Val Ser Glu Ala Tyr Glu Val Leu Ser Asp Ser Lys Lys Arg Ser Leu  
50 55 60  
Tyr Asp Arg Ala Gly Cys Asp Ser Trp Arg Ala Gly Gly Gly Ala Ser  
65 70 75 80  
Thr Pro Tyr His Ser Pro Phe Asp Thr Gly Tyr Thr Phe Arg Asn Pro  
85 90 95

Glu Asp Ile Phe Arg Glu Phe Phe Gly Gly Leu Asp Pro Phe Ser Phe  
                   100                          105                          110  
 Glu Phe Trp Asp Ser Pro Phe Asn Ser Asp Arg Gly Gly Arg Gly His  
                   115                          120                          125  
 Gly Leu Arg Gly Ala Phe Ser Ala Gly Phe Gly Glu Phe Pro Ala Phe  
                   130                          135                          140  
 Met Glu Ala Phe Ser Ser Phe Asn Met Leu Gly Cys Ser Gly Gly Ser  
                   145                          150                          155                          160  
 His Thr Thr Phe Ser Ser Thr Ser Phe Gly Gly Ser Ser Ser Gly Ser  
                                   165                                  170                                  175  
 Ser Gly Phe Lys Ser Val Met Ser Ser Thr Glu Met Ile Asn Gly His  
                                   180                                  185                                  190  
 Lys Val Thr Thr Lys Arg Ile Val Glu Asn Gly Gln Glu Arg Val Glu  
                                   195                                  200                                  205  
 Val Glu Glu Asp Gly Gln Leu Lys Ser Val Thr Val Asn Gly Lys Glu  
                                   210                                  215                                  220  
 Gln Leu Lys Trp Met Asp Ser Lys  
                                   225                                  230

&lt;210&gt; 3939

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3939

Met Ala Gln Gln Arg Ala Leu Pro Gln Ser Lys Glu Thr Leu Leu Gln  
           1                          5                          10                          15  
 Ser Tyr Asn Lys Arg Leu Lys Asp Asp Ile Lys Ser Ile Met Asp Asn

20	25	30
Phe Thr Glu Ile Ile Lys Thr Ala Lys Ile Glu Asp Glu Thr Gln Val		
35	40	45
Ser Arg Ala Thr Gln Gly Glu Gln Asp Asn Tyr Glu Met His Val Arg		
50	55	60
Ala Ala Asn Ile Val Arg Ala Gly Glu Ser Leu Met Lys Leu Val Ser		
65	70	75
80		
Asp Leu Lys Gln Phe Leu Ile Leu Asn Asp Phe Pro Ser Val Asn Glu		
85	90	95
Ala Ile Asp Gln Arg Asn Gln Gln Leu Arg Thr Leu Gln Glu Glu Cys		
100	105	110
Asp Arg Lys Leu Ile Thr Leu Arg Asp Glu Ile Ser Ile Asp Leu Tyr		
115	120	125
Glu Leu Glu Glu Glu Tyr Tyr Ser Ser Arg Tyr Lys		
130	135	140

&lt;210&gt; 3940

&lt;211&gt; 361

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3940

Met Trp Lys Glu Asn Gly Lys Lys Pro Gly Ser Phe Pro Thr Gln Leu		
1	5	10
15		
Arg Pro Asn Tyr Gln Leu Asn Ser Ser Arg Asn Met Leu Thr Ser Thr		
20	25	30
Ala Val Lys His Asp Leu Ala Glu Ser Phe Pro Phe Trp Ala Ser Lys		
35	40	45

Gly Lys Leu Glu Trp Gln His Ile His Gln Gln Pro Pro Tyr Ser Lys  
50 55 60  
Cys Phe Glu Asp His Leu Glu Gln Lys Tyr Val Gln Leu Phe Trp Gly  
65 70 75 80  
Leu Pro Ser Leu His Ser Glu Ser Leu His Pro Thr Val Phe Val Gln  
85 90 95  
His Gly Arg Ser Ser Met Phe Val Phe Phe Asn Gly Ile Thr Asn Thr  
100 105 110  
Ser Met Ser His Glu Ser Pro Val Leu Pro Pro Pro Gln Pro Leu Phe  
115 120 125  
Leu Pro Ser Thr Gln Pro Leu Pro Leu Pro Gln Thr Leu Pro Arg Gly  
130 135 140  
Gln Ser Leu His Leu Thr Gln Val Lys Ser Leu Ala Gln Pro Gln Ser  
145 150 155 160  
Pro Phe Pro Ala Leu Pro Pro Ser Pro Leu Phe Leu Ile Arg Val Cys  
165 170 175  
Gly Val Cys Phe His Arg Pro Gln Asn Glu Ala Arg Ser Leu Met Pro  
180 185 190  
Ser Glu Ile Asn His Leu Glu Trp Asn Val Leu Gln Lys Val Gln Glu  
195 200 205  
Ser Val Trp Gly Leu Pro Ser Val Val Gln Lys Ser Gln Glu Asp Phe  
210 215 220  
Cys Pro Pro Ala Pro Asn Pro Val Leu Val Arg Lys Ser Phe Lys Val  
225 230 235 240  
His Val Pro Ile Ser Ile Ile Pro Gly Asp Phe Pro Leu Ser Ser Glu  
245 250 255  
Val Arg Lys Lys Leu Glu Gln His Ile Arg Lys Arg Leu Ile Gln Arg  
260 265 270  
Arg Trp Gly Leu Pro Arg Arg Ile His Glu Ser Leu Ser Leu Leu Arg

出証特 2 0 0 4 - 3 0 5 9 6 6 0

出証特 2 0 0 4 - 3 0 5 9 6 6 0

<213> Homo sapiens

<400> 3942

Met Gln Ser Ser Trp Gln Val Pro Leu His Pro Pro Gly Ser Pro Trp  
1 5 10 15  
Pro Gln Leu Thr Leu Arg Ile Leu Pro Val Trp Gly Val Leu Arg Glu  
20 25 30  
Pro Leu Gln Ile Val Leu Glu Gln Gln Leu Val Pro Gly Asp Pro Leu  
35 40 45  
His Gly Leu Gln His Val Val Leu Gln Arg Gln Val Pro Ala Tyr Leu  
50 55 60  
Leu Leu Leu Trp Gly Gln Arg Glu His Trp Ala Leu Gln Gly His Val  
65 70 75 80  
Cys Gly Cys Gln Pro His Arg Leu Leu Ala Thr Thr Ala Pro Gly Ser  
85 90 95  
Cys Pro Glu Leu Ala Ala Gln Asn  
100

<210> 3943

<211> 1080

<212> PRT

<213> Homo sapiens

<400> 3943

Met Leu Arg Leu Pro Lys Lys Arg Leu Pro Arg Phe Glu Gln Val Gln  
1 5 10 15  
Asp Glu Asp Thr Tyr Leu Glu Asn Leu Ala Ile Gln Arg Asn Ala Ser  
20 25 30

Ala Phe Phe Glu Lys Tyr Asp Arg Ser Glu Ile Gln Glu Leu Leu Thr  
                   35                                  40                                  45  
 Thr Ala Leu Val Ser Trp Leu Ser Ala Lys Glu Asp Val Arg Ser Gln  
                   50                                  55                                  60  
 Val Asp Leu Pro Cys Gly Ile Met Ser Gln Met Asn Asn Val Gly Phe  
                   65                                  70                                  75                                  80  
 Ser Thr Ala Ile Leu Leu Thr Pro Val Asp Pro Thr Ala Leu Leu Asp  
                                   85                                  90                                  95  
 Tyr Arg Glu Val His Gln Met Ile Arg Glu Leu Ala Ile Gly Ile Tyr  
                                   100                                  105                                  110  
 Cys Leu Asn Gln Ile Pro Ser Ile Ser Leu Glu Ala Asn Tyr Asp Gln  
                                   115                                  120                                  125  
 Ser Ser Ser Cys Gln Leu Pro Pro Ala Tyr Tyr Asp Thr Arg Ile Gly  
                                   130                                  135                                  140  
 Gln Ile Leu Ile Asn Ile Asp Tyr Met Leu Lys Ala Leu Trp His Gly  
                   145                                  150                                  155                                  160  
 Ile Tyr Met Pro Lys Glu Lys Arg Ala Arg Phe Ser Glu Leu Trp Arg  
                                   165                                  170                                  175  
 Ala Ile Met Asp Ile Asp Pro Asp Gly Lys Pro Gln Thr Asn Lys Asp  
                                   180                                  185                                  190  
 Ile Phe Ser Glu Phe Ser Ser Ala Gly Leu Thr Asp Ile Thr Arg Asp  
                                   195                                  200                                  205  
 Pro Asp Phe Asn Glu Ile Tyr Asp Glu Asp Val Asn Glu Asp Pro Thr  
                                   210                                  215                                  220  
 Tyr Asp Pro Asn Ser Pro Glu Glu Thr Ala Val Phe Met Lys Tyr Ala  
                   225                                  230                                  235                                  240  
 Glu Asn Ile Met Leu Lys Leu Thr Phe Ser Thr Thr Gln Ile Gln Gln  
                                   245                                  250                                  255  
 Tyr Glu Asn Val Phe Ile Phe Glu Thr Gly Tyr Trp Leu Thr Asn Ala



260	265	270
Ile Lys Tyr Asn Gln Asp Tyr Leu Asp Ile Cys Thr Tyr Gln Arg Leu		
275	280	285
Gln Gln Arg Leu Tyr Leu Gln Lys Lys Ile Ile Gln Lys His Phe Glu		
290	295	300
Lys Lys Lys Asp Ile Arg Arg Gly Ile Gly Tyr Leu Lys Leu Ile Cys		
305	310	315
Phe Leu Ile Pro Phe Leu Leu Ser Leu Lys Lys Lys Met Lys Val Pro		
325	330	335
Tyr Leu Ser Ser Leu Leu Gln Pro Phe Ser Asp Asp Lys Val Lys Thr		
340	345	350
Glu Arg Glu Leu Pro Pro Phe Ile Tyr Gly Arg Asp Phe Lys Cys Gln		
355	360	365
Asn Phe His Tyr Lys Glu Asn Gln Tyr Phe His Val His Gly Gly Ile		
370	375	380
Glu Phe Asp Ile Ser Thr Pro Ser Ile Glu Asn Ala Leu Glu Asp Phe		
385	390	395
Gln Lys Asn Leu Glu Lys Ile Arg Asp Cys Ala Ala Asn Thr Phe Ile		
405	410	415
Glu Asp Ser Gly Tyr Lys Glu Tyr Tyr Ser Ile Pro Val Met Glu Phe		
420	425	430
His Gly Lys Ser Tyr Tyr Val Ile Tyr Phe Glu Leu Glu Thr Phe Tyr		
435	440	445
Gln Gln Leu Tyr Lys Thr Gln Trp Trp Gly Ala Ile Asn Glu Ile Val		
450	455	460
Asn Asn Leu Arg Leu Lys Arg Leu Pro Leu Thr Asp Ala Gln Leu His		
465	470	475
Glu Gln Phe Lys Lys Lys Leu Gly Phe Lys Arg Ala Met Lys Cys Lys		
485	490	495

Ser Ile Pro Phe Gly Met Lys Ser Ala Val Glu Arg Gly Leu Ser Ala  
500 505 510  
Val Phe His Thr Phe Ser Arg Lys Thr Ser Ser Ser Thr Ile Asn Val  
515 520 525  
Ser Asp Glu Ala Gly Tyr Thr Ile Phe His His Ala Ala Leu His Asn  
530 535 540  
Arg Val Ser Ile Ile Cys Gln Leu Cys Asn Ala Asn Phe Lys Val Asn  
545 550 555 560  
Gln Arg Arg Phe Val Thr Phe Ser Gln Gly Pro Thr Pro Leu His Leu  
565 570 575  
Ala Ala Gln Ala Cys Ser Leu Glu Thr Thr Val Cys Leu Leu Cys Ser  
580 585 590  
Lys Ala Asp Tyr Thr Leu Ser Glu Lys Arg Gly Trp Met Pro Ile His  
595 600 605  
Phe Ala Ala Phe Tyr Asp Asn Val Cys Ile Ile Ile Ala Leu Cys Arg  
610 615 620  
Lys Asp Pro Ser Leu Leu Glu Ala Glu Ala Thr Ala Glu Asn Gln Cys  
625 630 635 640  
Thr Pro Leu Leu Leu Ala Ala Thr Ser Gly Ala Leu Asp Thr Ile Gln  
645 650 655  
Tyr Leu Phe Ser Ile Gly Ala Asn Trp Arg Lys Thr Asp Ile Lys Gly  
660 665 670  
Asn Asn Ile Ile His Leu Ser Val Leu Thr Phe His Thr Glu Val Leu  
675 680 685  
Lys Tyr Ile Ile Lys Leu Asn Ile Pro Glu Leu Pro Val Trp Lys Thr  
690 695 700  
Leu Val Glu Met Leu Gln Cys Glu Ser Tyr Lys Arg Arg Met Met Ala  
705 710 715 720  
Val Met Ser Leu Glu Val Ile Cys Leu Ala Asn Asp Gln Tyr Trp Arg

725 730 735  
Cys Ile Leu Asp Ala Gly Thr Ile Pro Ala Leu Ile Asn Leu Leu Lys  
740 745 750  
Ser Ser Lys Ile Lys Leu Gln Cys Lys Thr Val Gly Leu Leu Ser Asn  
755 760 765  
Ile Ser Thr His Lys Ser Ala Val His Ala Leu Val Glu Ala Gly Gly  
770 775 780  
Ile Pro Ser Leu Ile Asn Leu Leu Val Cys Asp Glu Pro Glu Val His  
785 790 795 800  
Ser Arg Cys Ala Val Ile Leu Tyr Asp Ile Ala Gln Cys Glu Asn Lys  
805 810 815  
Asp Val Ile Ala Lys Tyr Asn Gly Ile Pro Ser Leu Ile Asn Leu Leu  
820 825 830  
Asn Leu Asn Ile Glu Asn Val Leu Val Asn Val Met Asn Cys Ile Arg  
835 840 845  
Val Leu Cys Ile Gly Asn Glu Asn Asn Gln Arg Ala Val Arg Glu His  
850 855 860  
Lys Gly Leu Pro Tyr Leu Ile Arg Phe Leu Ser Ser Asp Ser Asp Val  
865 870 875 880  
Leu Lys Ala Val Ser Ser Ala Ala Ile Ala Glu Val Gly Arg Asp Asn  
885 890 895  
Lys Glu Ile Gln Asp Ala Ile Ala Met Glu Gly Ala Ile Pro Pro Leu  
900 905 910  
Val Ala Leu Phe Lys Gly Lys Gln Ile Ser Val Gln Met Lys Gly Ala  
915 920 925  
Met Ala Val Glu Ser Leu Ala Ser His Asn Ala Leu Ile Gln Lys Ala  
930 935 940  
Phe Leu Glu Lys Ser Leu Thr Lys Tyr Leu Leu Lys Leu Leu Lys Ala  
945 950 955 960

Phe Gln Ile Asp Val Lys Glu Gln Gly Ala Val Ala Leu Trp Ala Leu  
                     965                    970                    975  
 Ala Gly Gln Thr Leu Lys Gln Gln Lys Tyr Met Ala Glu Gln Ile Gly  
                     980                    985                    990  
 Tyr Ser Phe Ile Ile Asn Met Leu Leu Ser Pro Ser Ala Lys Met Gln  
                     995                    1000                    1005  
 Tyr Val Gly Gly Glu Ala Val Ile Ala Leu Ser Lys Asp Ser Arg Met  
                     1010                    1015                    1020  
 His Gln Asn Gln Ile Cys Glu Gly Asn Gly Ile Ala Pro Leu Val Arg  
 1025                    1030                    1035                    1040  
 Leu Leu Arg Ile Ser Thr Ile Ala Glu Gly Thr Leu Leu Ser Val Ile  
                     1045                    1050                    1055  
 Arg Ala Val Gly Ser Ile Cys Ile Gly Tyr Leu Leu Lys Ser Arg Leu  
                     1060                    1065                    1070  
 Cys Ile Asn Thr Phe Cys Leu Gln  
                     1075                    1080

<210> 3944

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3944

Met Arg Lys Gly Asn Leu Leu Leu Ser Trp Leu Leu Gly Pro Glu Leu  
                     1                    5                    10                    15  
 Pro Glu Leu Ser Pro Arg Ala Arg Lys Ala Asp Leu Lys Asp Glu Asn  
                     20                    25                    30  
 Leu Lys Phe Ser Cys Trp Trp Glu Pro Arg Lys Thr Ala Gly Val Leu

35                      40                      45  
 Thr Trp Pro Phe Leu Ala Glu Leu Ala Glu Val Gly Val Leu Ala Asp  
 50                      55                      60  
 Gly Met Tyr Leu Gly Ala Val Ser Val Ala Gln Gln Arg Cys Arg Ala  
 65                      70                      75                      80  
 Asp Trp Leu Ser His Trp Val Leu Pro Ala Gly Ser Pro Leu His Trp  
 85                      90                      95  
 Ala Phe Thr Gln Pro Cys Ser Trp Val Ser Leu Pro Cys Lys Gln Ser  
 100                      105                      110  
 His Asn Asn Thr Arg Ile Val  
 115

<210> 3945

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3945

Met Glu Lys Thr Gln Thr Ile Gly Arg Gly Asp Glu His Val Ile Ile  
 1                      5                      10                      15  
 Val Thr Thr Cys Leu Glu Ala Thr Arg Met Glu Trp Gly Arg Leu Lys  
 20                      25                      30  
 Glu Glu Ile Phe Thr Gly Leu Thr Ser His His Ser Ser Arg Val Val  
 35                      40                      45  
 Val Ile Thr Pro Glu Gly Lys Ile Ile Ser Val Phe Tyr Gly Leu Ile  
 50                      55                      60  
 Ile Gly Asp Ser Ser Cys Phe Glu Asp Thr Asn Thr Glu Ala Ser Ser  
 65                      70                      75                      80

Arg Thr Tyr Ser Gln Phe Pro Trp Ser Gln Cys Cys Gln Trp Phe Tyr  
85 90 95  
Lys Gly Leu Met Asn Leu Tyr Leu Val Asp His Lys  
100 105

<210> 3946

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3946

Met Gln Ala Ala Ser Leu Arg Ala Gly Ile Leu Gln Ile Val Gly Leu  
1 5 10 15  
Lys Ile Ile Arg Asn Val Glu Ala Leu Lys Ala Phe Leu Arg Asn Ser  
20 25 30  
Arg Ala Thr Met Ala His Gln Trp Cys Tyr Gly Ala Met Gly Ala Pro  
35 40 45  
Gln Phe Gly Leu Ser Tyr Leu Glu Gly Ser Ala Gly His Ser Ala Asn  
50 55 60  
Thr Pro Ala Phe His Ile Leu Gly Asp His Val Trp Met Ala Leu Met  
65 70 75 80  
Cys Pro Ile Leu Val Glu Glu His Arg Lys Ala Ser Phe Leu His Phe  
85 90 95  
Lys Glu Ala Arg Glu Thr Cys Glu Val Phe Ser Thr Ser Leu Val His  
100 105 110  
Pro

&lt;210&gt; 3947

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3947

Met Ile Thr Ser Pro Cys Ser Pro Ala Ala Phe Pro Pro Pro Ser Thr

1 5 10 15

Ser Pro Thr Leu Arg Ala Pro His Leu Pro Ser His Pro Pro Pro Ser

20 25 30

Tyr Leu Phe Leu Tyr Asp Ser Ser Leu Arg Ala Ser Leu Ser Leu Val

35 40 45

Thr Ser Leu Ile Tyr Cys Lys Tyr Arg Lys Val Lys Ser Gly Gln Asn

50 55 60

Arg Gln Arg Ser Ser Trp Leu Ala Ser Asn Asn Ser Tyr Asn Asn Tyr

65 70 75 80

Ser Pro Val Asn Asn Ser Leu Leu Ser Ile Thr Ala Asp Met Phe Ser

85 90 95

Trp His Phe Gln Ala Tyr Ser Leu Ile Cys Phe Ser Lys Asn Ser Ile

100 105 110

Arg Val Glu Ala Thr Gly Lys Glu Ile Lys Phe Ile Ala Gly Tyr Gln

115 120 125

Arg Pro Arg Glu Ile Arg Glu Tyr Cys Tyr Cys Tyr Tyr Pro Tyr Tyr

130 135 140

Tyr His Cys Leu Lys Leu

145 150

&lt;210&gt; 3948

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3948

Met Thr Gln Thr His Ser Leu Arg Ser Val Phe Val Phe Gln Arg Tyr

1 5 10 15

Val Cys Ile Ser Pro Thr Leu Arg Phe Met Val Thr Gln Ser Arg Gly

20 25 30

Phe Ser Leu Ala Leu Pro Thr Ala Glu Thr Cys Ser Phe Leu Ala Arg

35 40 45

Tyr Pro Gln Gly Pro Ala Ala Gly Gly Gly Thr Ser Gln Ser Gly Trp

50 55 60

Gly Pro Pro Ser Gly Gln Asn Ile Ile Leu Trp Lys Lys Val Phe Ser

65 70 75 80

Asn Ala Phe Leu Arg Gln Asp Leu Val Leu Ser Pro Arg Val Gly Ser

85 90 95

Ala Val Val Gln Leu Arg Gly Asn Ser Met Leu Ala Val Leu Thr Ala

100 105 110

Leu Ala Arg Ser Arg Arg Leu Leu Cys Leu Gly Ser Tyr Phe Gly Gly

115 120 125

Thr

&lt;210&gt; 3949

&lt;211&gt; 122

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 3949

Met Ala Glu Gly His Gly Phe Leu Lys Asp His Cys Gly Cys Cys Val

1 5 10 15

Asn Arg Gly Thr Ser Asp Glu Gln Asn Gln Ala Leu Asn Cys Glu Met

20 25 30

Thr Ala Glu Met Cys Lys Arg Ala Arg Trp Cys Leu Asp Leu Leu Val

35 40 45

Ala Ala Glu Ser Val Arg Asn Gly Trp Arg Pro Val Cys Val Gln Met

50 55 60

Glu Pro Asn Glu Leu Pro Trp Glu Gly Trp Val Gly Cys Ser Arg Val

65 70 75 80

Gly Arg Glu Glu Leu Gly Asn Leu Glu Asp Ser Ser Leu Ser Asn Trp

85 90 95

Ala Glu Gly Asp Val Ile Phe Leu Lys Thr Arg Glu Lys Trp Ala Trp

100 105 110

Glu Gly Lys Phe Asp Leu Arg His Ala Asn

115 120

&lt;210&gt; 3950

&lt;211&gt; 257

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3950

Met His Ala Lys Ile Trp Leu Met Lys Thr Ser Leu Arg Ser Gly Arg

1 5 10 15

Ala Ala Leu Arg Glu Leu Arg Ser Arg Glu Asn Phe Leu Ser Lys Leu  
20 25 30  
Asn Arg Glu Leu Ile Glu Thr Ile Gln Glu Met Glu Asn Ser Thr Thr  
35 40 45  
Leu His Val Arg Ala Leu Leu Gln Gln Gln Asp Thr Leu Ala Thr Ile  
50 55 60  
Ile Asp Ile Leu Glu Tyr Ser Asn Lys Lys Arg Leu Gln Gln Leu Lys  
65 70 75 80  
Ser Glu Leu Gln Glu Trp Glu Glu Lys Lys Lys Cys Lys Met Ser Tyr  
85 90 95  
Leu Glu Gln Gln Ala Glu Gln Leu Asn Ala Lys Ile Glu Lys Thr Gln  
100 105 110  
Glu Glu Val Asn Phe Leu Ser Thr Tyr Met Asp His Glu Tyr Ser Ile  
115 120 125  
Lys Ser Val Gln Ile Ser Thr Leu Met Arg Gln Leu Gln Gln Val Lys  
130 135 140  
Asp Ser Gln Gln Asp Glu Leu Asp Asp Leu Gly Glu Met Arg Arg Lys  
145 150 155 160  
Val Leu Glu Ser Leu Ser Asp Lys Ile Gln Lys Lys Lys Lys Lys Ile  
165 170 175  
Leu Ser Ser Val Val Ala Val Ser Ser Gln Leu Leu Cys Gly Ser Gly  
180 185 190  
Asp Pro Gly Leu Thr Pro Thr Pro Pro Ser Ser Pro Ser Ser Ala Ser  
195 200 205  
Arg Pro Thr Ala Ala Pro Ser Val Ser Thr Met Phe Cys Cys Pro Gly  
210 215 220  
Arg Gly Thr Trp Gly Pro Asp Leu Phe Phe Leu His Arg Lys Pro Ser  
225 230 235 240  
Val Pro Met Lys Arg Leu Ser Tyr Arg Arg Cys Gly Glu Ala Arg Thr

245

250

255

Ser

&lt;210&gt; 3951

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3951

Met Thr Ser Ala Lys Thr Leu Arg Gly Arg His Ser Ser Thr Lys Thr

1

5

10

15

Leu Phe Pro Ser Glu Val Pro Phe Thr Gly Thr Gly Val Arg Thr Ser

20

25

30

Pro Cys Leu Leu Gly Ala Ile Pro Phe Asn Leu Gln Gln Pro Leu Val

35

40

45

Ser Val His Asn Ala Asn Glu Val Arg Val Ala Ser Pro Gln Ala Asn

50

55

60

Asn Phe Pro Gln Ile Ala Ala Arg Cys Gly Pro Ala Lys Ser Gln Gly

65

70

75

80

Ala Ala Ile Ser Lys Gln Ser Pro Pro Val Leu Glu Gly Val Cys Arg

85

90

95

Asp Ala Ser Gly Glu Arg Pro Gly Pro Gly Ala Gly Leu Gln Leu Trp

100

105

110

Asp Lys Leu Leu Ser Gly Pro Gly Ala Thr Gln Arg Arg Gln Ala Ala

115

120

125

Val Gln Val Lys Pro Ile Gln His Leu Ala Pro Cys Leu Gln Ala

130

135

140

&lt;210&gt; 3952

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3952

Met Ser His Cys Pro Arg Ala Cys Lys Leu Phe Phe Asn Phe Ser Ser  
1 5 10 15  
Trp Thr Ser Leu Cys Cys Gly Ser Pro Ser Val Ser Leu Ala Ser His  
20 25 30  
Ser Gln Thr Gly Lys Ala Arg Ser Phe Ser Ser Leu Ala Phe Ser Ser  
35 40 45  
Ser Ile Ser Phe Leu Leu Gly His Ser Ser Val Leu Ile Tyr Ser Gly  
50 55 60  
Phe Phe Leu Phe Lys Asn Leu Phe His Ser Tyr Val Ser Cys Gly Leu  
65 70 75 80  
Asp Glu Ile Leu His Asp Phe Ile Gln Ser His Gly Thr Arg Leu Leu  
85 90 95  
Glu Ser Ser Glu Ile Cys Leu Phe Ile Asn Pro Leu Gln Trp Asp Ser  
100 105 110  
His

&lt;210&gt; 3953

&lt;211&gt; 166

&lt;212&gt; PRT

<213> Homo sapiens

<400> 3953

Met Glu Gly Thr Tyr Ile Thr Ser Glu His Ser Tyr Gln Lys Pro Gln

1 5 10 15

Ser Phe Gly Gln Asp Cys Lys Ser Leu Ala Asp Pro Gly Ser Ser Asp

20 25 30

Asp Asp Asp Val Ser Ser Leu Glu Glu Glu Gln Glu Phe His Met Arg

35 40 45

Ser Lys Asn Ser Leu Gln Tyr Ser Ala Lys Glu His Gly Met Pro Glu

50 55 60

Lys Asn Pro Ala Glu Gly Asn Thr Val Phe Val Tyr Asn Asp Lys Lys

65 70 75 80

Gly Thr Glu Asp Pro Gly Asp Ser His Leu Gln Trp Gln Leu Asn Leu

85 90 95

Leu Thr His Ile Glu Asn Val Gln Asn Glu Val Thr Ser Arg Met Asp

100 105 110

Leu Ile Glu Lys Glu Val Asp Val Leu Glu Ser Trp Leu Asp Phe Thr

115 120 125

Gly Glu Leu Glu Pro Pro Asp Pro Leu Ala Arg Leu Pro Gln Leu Lys

130 135 140

Arg His Ile Lys Gln Leu Leu Ile Asp Met Gly Lys Val Gln Gln Ile

145 150 155 160

Ala Thr Leu Cys Ser Val

165

<210> 3954

<211> 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3954

Met Lys Lys Val Lys Lys Lys Arg Ser Glu Ala Arg Arg His Arg Asp  
1 5 10 15  
Ser Thr Ser Gln His Ala Ser Ser Asn Ser Thr Ser Gln Gln Pro Ser  
20 25 30  
Pro Glu Ser Thr Pro Gln Gln Pro Ser Pro Glu Ser Thr Pro Gln His  
35 40 45  
Ser Ser Leu Glu Thr Thr Ser Arg Gln Pro Ala Phe Gln Ala Leu Pro  
50 55 60  
Ala Pro Glu Ile Arg Arg Ser Ser Cys Cys Leu Leu Ser Pro Asp Ala  
65 70 75 80  
Asn Val Lys Ala Ala Pro Gln Ser Arg Lys Ala Gly Gly Leu Ser Ser  
85 90 95  
Ser Phe Ser Ser Ser Ser Leu Pro Ala Asp Gly Val Leu Gly His Pro  
100 105 110  
Lys Gly Trp Phe Leu  
115

&lt;210&gt; 3955

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3955

Met Phe Gly Ser Ser Arg Gly Gly Val Arg Gly Gly Gln Asp Gln Phe

1                      5                      10                      15  
Asn Trp Glu Asp Val Lys Thr Asp Lys Gln Arg Glu Asn Tyr Leu Gly  
20                      25                      30  
Asn Ser Leu Met Ala Pro Val Gly Arg Trp Gln Lys Gly Arg Asp Leu  
35                      40                      45  
Thr Trp Tyr Ala Lys Gly Arg Ala Pro Cys Ala Gly Pro Ser Arg Glu  
50                      55                      60  
Glu Glu Leu Ala Ala Val Arg Glu Ala Glu Arg Glu Ala Leu Leu Ala  
65                      70                      75                      80  
Ala Leu Gly Tyr Lys Asn Val Lys Lys Gln Pro Thr Gly Leu Ser Lys  
85                      90                      95  
Glu Asp Phe Ala Glu Val Cys Lys Arg Glu Gly Gly Asp Pro Glu Glu  
100                      105                      110  
Lys Gly Val Asp Arg Leu Leu Gly Leu Gly Ser Ala Ser Gly Ser Val  
115                      120                      125  
Gly Arg Val Ala Met Ser Arg Glu Asp Lys Glu Ala Ala Lys Leu Gly  
130                      135                      140  
Leu Ser Val Phe Thr His His Arg Val Glu Ser Gly Gly Pro Gly Thr  
145                      150                      155                      160  
Ser Ala Ala Ser Ala Arg Arg Lys Pro Arg Ala Glu Asp Gln Thr Glu  
165                      170                      175  
Ser Arg Gly Val Ser Arg Val Thr Leu Glu Glu Arg Ser  
180                      185

&lt;210&gt; 3956

&lt;211&gt; 968

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3956

Met Glu Val Thr Gly His Leu Pro Pro Leu Asn Glu Thr Ala Asn Phe  
1 5 10 15  
Ile Ser Asn Ser Lys Ile Lys Thr Ser Asp Thr Thr Gln Lys Asn Ser  
20 25 30  
Phe Gln Ser His Ile Asn Ser Val Ala Asn Asp Ile Val Glu Ser Val  
35 40 45  
Leu Gly Lys Met Tyr Leu Val Val Val Thr Ser Leu Tyr Glu Asn Asn  
50 55 60  
Lys Ser Arg Thr Glu Val Glu Ile Ser Asp His Asn Asp Ser Leu Leu  
65 70 75 80  
Met Lys Pro Leu Arg Phe Arg Glu Thr Lys Gln Ala Gly Lys Ile Ser  
85 90 95  
Asn Ser Pro Arg Tyr Ala Ile Ser Gln Ala Tyr Ser Tyr Val Asp Ser  
100 105 110  
Gln Asn Ile Ser Val Met Glu Asn Thr Leu Leu Pro Tyr Leu Pro Leu  
115 120 125  
Gln Val Lys Lys Asp Leu Ile Gln Met Val Leu Asn Lys Ile Thr Asn  
130 135 140  
Phe Val Ser Leu Pro Leu Lys Val Ser Pro Lys Asp Asn Pro Lys Pro  
145 150 155 160  
Cys Phe Lys Ala His Leu Lys Thr Arg Ser Lys Ile Thr Thr Leu Pro  
165 170 175  
Lys Phe Thr Lys Lys Thr His Leu Gly Leu Ser Ala Ala Lys Ala Lys  
180 185 190  
Ser Lys Thr Lys Leu Gly Pro Gly Glu Lys Thr Leu Lys Asp Ser Arg  
195 200 205  
Ser Lys Thr Ala Ile Gly Leu Ser His Ile Met Ser Ala Gly Asp Ala



210	215	220
Lys Asn Leu Leu Asp Thr Lys Leu Pro Thr Ser Glu Leu Lys Ile Tyr		
225	230	235 240
Ala Lys Asp Ile Ile Ile Asn Ile Leu Glu Thr Ile Val Lys Glu Phe		
245	250	255
Gly Lys Val Lys Gln Thr Lys Ala Leu Pro Ser Asp Gln Ile Ile Ala		
260	265	270
Ala Gly Lys Ile Val Asn Thr Val Leu Gln Glu Leu Tyr Val Thr Asn		
275	280	285
Asn Cys Asn Leu Ala Tyr Pro Met Lys Ser Ser His Leu Arg Leu Ser		
290	295	300
Gln Gly Asn Ile Gly Ile Gly Ser Leu Pro Lys Gln Gln Ala Cys Phe		
305	310	315 320
Tyr Leu Glu Asn Val Ser Ser Gln Leu Glu His Ile Phe Pro Arg Glu		
325	330	335
Gly Ile Phe Lys Lys Leu Phe Asp Lys Trp Gln Thr Glu Ser Asn Asp		
340	345	350
Lys Glu Asn Glu Lys Cys Lys Leu Leu Met Ile Ala Glu Asn Val Leu		
355	360	365
Thr Glu Ile Ser Ile Lys Ala Lys Glu Leu Glu Tyr Ser Leu Ser Leu		
370	375	380
Leu Asn Leu Pro Pro Leu Glu Asn Cys Glu Ser Arg Leu Tyr Asn His		
385	390	395 400
Phe Glu Gly Ala Ser Thr Arg Ala Glu Asp Thr Lys Ala Gln Ile Asn		
405	410	415
Met Phe Gly Arg Glu Ile Val Glu Met Leu Leu Glu Lys Leu Gln Leu		
420	425	430
Cys Phe Leu Ser Gln Ile Pro Thr Pro Asp Ser Glu Glu Thr Leu Ser		
435	440	445

Asn Ser Lys Glu His Ile Thr Ala Lys Ser Lys Tyr Gly Phe Pro Asn  
450 455 460  
Lys His Ser Leu Ser Ser Leu Pro Ile Tyr Asn Thr Lys Thr Lys Asp  
465 470 475 480  
Gln Ile Ser Val Gly Ser Ser Asn Gln Ile Val Gln Glu Ile Val Glu  
485 490 495  
Thr Val Leu Asn Met Leu Glu Ser Phe Val Asp Leu Gln Phe Lys His  
500 505 510  
Ile Ser Lys Tyr Glu Phe Ser Glu Ile Val Lys Met Pro Ile Glu Asn  
515 520 525  
Leu Ser Ser Ile Gln Gln Lys Leu Leu Asn Lys Lys Met Leu Pro Lys  
530 535 540  
Leu Gln Pro Leu Lys Met Phe Ser Asp Lys Ser Glu Ser Asn Thr Ile  
545 550 555 560  
Asn Phe Lys Glu Asn Ile Gln Asn Ile Leu Leu Arg Val His Ser Phe  
565 570 575  
His Ser Gln Leu Leu Thr Tyr Ala Val Asn Ile Ile Ser Asp Met Leu  
580 585 590  
Ala Val Ile Lys Asn Lys Leu Asp Asn Glu Ile Ser Gln Met Glu Pro  
595 600 605  
Ser Ser Ile Ser Ile Leu Lys Glu Asn Ile Val Ala Ser Glu Ile Ile  
610 615 620  
Gly Thr Leu Met Asp Gln Cys Thr Tyr Phe Asn Glu Ser Leu Ile Gln  
625 630 635 640  
Asn Leu Ser Arg Glu Ser Leu Phe Gln Gly Ala Glu Asn Ala Tyr Thr  
645 650 655  
Val Asn Gln Val Glu Leu Ala Thr Asn Met Lys Met Phe Thr Ser Lys  
660 665 670  
Leu Lys Glu Gly Ser Leu Gly Ile Asn Pro Ser Gln Val Ser Lys Thr

675	680	685
Gly Phe Val Phe Cys Ser Asp Glu Asp Met Lys Glu Lys Tyr Arg Val		
690	695	700
Ser Ser Asp Leu Pro Thr Ser Val Arg Ser Ser Val Glu Asp Thr Val		
705	710	715
Lys Asn Ser Glu Pro Thr Lys Arg Pro Asp Ser Glu Thr Met Pro Ser		
725	730	735
Cys Ser Thr Arg Asn Lys Val Gln Asp His Arg Pro Arg Glu Ser Asn		
740	745	750
Phe Gly Ser Phe Asp Gln Thr Met Lys Gly Asn Ser Tyr Leu Pro Glu		
755	760	765
Gly Ser Phe Leu Gln Lys Leu Leu Arg Lys Ala Ser Asp Ser Thr Glu		
770	775	780
Ala Ala Leu Lys Gln Val Leu Ser Phe Ile Glu Met Gly Lys Gly Glu		
785	790	795
Asn Leu Arg Val Phe His Tyr Glu Asn Leu Lys Pro Val Val Glu Pro		
805	810	815
Asn Gln Ile Gln Thr Thr Ile Ser Pro Leu Lys Ile Cys Leu Ala Ala		
820	825	830
Glu Asn Ile Val Asn Thr Val Leu Ser Ser Cys Gly Phe Pro Ser Gln		
835	840	845
Pro His Thr Asn Glu Asn Arg Glu Ile Met Lys Pro Phe Phe Ile Ser		
850	855	860
Lys Gln Ser Ser Leu Ser Glu Val Ser Gly Gly Gln Lys Asp Asn Glu		
865	870	875
Lys Ser Leu Leu Arg Met Gln Asp Lys Lys Ile Asn Tyr Ile Pro Glu		
885	890	895
Glu Glu Asn Glu Asn Leu Glu Ala Ser Arg Glu Asp Ser Ser Phe Leu		
900	905	910

Gln Lys Leu Lys Lys Lys Glu Tyr Pro Lys Ile Glu Thr Val Lys Glu  
                   915                                  920                                  925  
 Val Glu Ala Phe Thr Phe Ala Asp His Glu Met Gly Ser Asn Glu Val  
                   930                                  935                                  940  
 His Leu Ile Ala Arg His Val Thr Thr Ser Val Val Thr Tyr Leu Lys  
 945                                  950                                  955                                  960  
 Asn Phe Glu Thr Thr Gly Arg Cys  
                                   965

<210> 3957

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3957

Met Ala Ser Leu Ser Gly Pro Pro Cys Ala Ser Thr Leu Gln Pro Met  
   1                                  5                                  10                                  15  
 Ser Ala Thr His Ser Arg Gly Pro Trp Thr Trp Pro Pro Ala Gly Ala  
                                   20                                  25                                  30  
 Val Leu Ser Asp Pro Ser Phe Ser Leu Ser Pro Phe Ser Ala Ala Ser  
                                   35                                  40                                  45  
 Ser Ser Pro Gly Ser Ile Leu Ser Leu Asn Ser Met Thr Gln Leu Pro  
                   50                                  55                                  60  
 Pro Leu Ser Pro Lys Ser Arg Leu Leu Leu Trp Pro Phe Pro Leu Ser  
                   65                                  70                                  75                                  80  
 Leu Lys Pro Ala Ser Val Trp Thr Gln Leu Leu Pro Ser Pro His Ser  
                                   85                                  90                                  95  
 Arg Arg Gly Cys Ser Ala Leu Leu Glu Arg Pro Pro Pro Leu Asn Ser

100 105 110  
 Ala His Gln Thr Ser Thr Ile Gln Pro Leu Arg Gly Pro Gln Ser Tyr  
 115 120 125  
 Leu Ala Ile Gly Leu Leu Ala Pro Asn His Leu Pro Leu Pro Ser Ser  
 130 135 140  
 Ser Ser Ser Ser Leu His His Phe Leu Ile Thr Ser Asp Leu Ser Ser  
 145 150 155 160  
 Ser Ala Glu Asp Leu Ser Pro Ser Val Tyr Thr Glu Trp Pro Leu Ala  
 165 170 175  
 Glu Asn Pro Pro  
 180

&lt;210&gt; 3958

&lt;211&gt; 161

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3958

Met Glu Val Thr Leu Leu Val Lys Gly Glu Pro Pro Pro Cys His His  
 1 5 10 15  
 Asp Ser Ser Gly Pro Gly His Cys Pro Gln Phe Gln Gly Lys Lys Gln  
 20 25 30  
 Met Ser Gly Ala Arg Ala Arg Ala Gln His Gln Ala His Ser Ser Gln  
 35 40 45  
 Glu Ser Thr Gln Cys Gln Val Ser Pro Cys Pro Ala Trp His Pro Arg  
 50 55 60  
 Ala Gly Cys Ser Ser His Gly Thr Asp Gly Asn Ala Lys Ala His Arg  
 65 70 75 80

Glu Ala Leu Ala Pro His Cys Pro Val Pro Pro Pro Pro His Ala Pro  
                             85                            90                            95  
 Glu Arg Pro Gly Pro Cys Leu Gln Ala Pro Ala Ser Ala Pro Arg Arg  
                             100                            105                            110  
 Glu Ala Cys Pro Ala Thr Leu Val Leu Lys Ser His Pro Trp Leu Pro  
                             115                            120                            125  
 Val Pro Gly Lys Gln Val Gly Ser Thr Lys Pro Arg Val Pro Ala Thr  
                             130                            135                            140  
 Leu Cys Thr Asp Ala Asp Phe Leu Cys Thr Leu Gly Cys Leu Leu Pro  
                             145                            150                            155                            160  
 His

<210> 3959

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3959

Met Pro Ser Ser Ile Asp Ile Ile Asp Gly Thr Lys Glu Lys Lys Thr  
           1                            5                            10                            15  
 Lys Leu Asp Gly Gly Ser Ala Ser Leu Leu Arg Leu Gln Glu Glu Leu  
                             20                            25                            30  
 Ser Leu Pro Gln Thr Glu Val Leu Glu Phe Gly Val Pro Leu Leu Arg  
                             35                            40                            45  
 Ala Ala Ala Trp Glu Leu Trp Pro Lys Glu Gln Gln Ile Ala Leu His  
                             50                            55                            60  
 Leu Glu Cys Ala Cys Phe Leu Gln Val Leu Ala Cys Arg Cys Gly Ser

65	70	75	80
Cys His Gly Gly Asp Phe Val Pro Phe His His Phe Ala Val Cys Ser			
	85	90	95
Thr Lys Asn Ser Lys Gly Thr Ser Arg Phe Cys Thr Tyr Arg Asp Thr			
	100	105	110
Gly Ser Val Leu Thr Gln Val Ile Thr Glu Lys Leu Gln Leu Pro Ser			
	115	120	125
Pro Gln Glu Gln Arg Lys Ser Ser			
130	135		

&lt;210&gt; 3960

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3960

Met Thr Asn Ser Thr Val Pro Asp Val Leu Cys Ile Gly Pro Pro Glu			
1	5	10	15
Tyr Gln Glu Lys Lys Leu Asn Asp Val Thr Ser Phe Asp Tyr Glu Cys			
	20	25	30
Thr Thr Thr Asp Phe Val Val His Gln Thr Leu Pro Tyr Gln Ser Val			
	35	40	45
Ser Val Asp Thr Phe Asn Ser Lys Asn Asp Val Tyr Val Ala Ile Ala			
	50	55	60
Gln Pro Ser Met Glu Asn Cys Met Val Leu Glu Trp Asp His Ile Glu			
65	70	75	80
Met Asn Phe Arg Ser Tyr Asp Asn Ile Thr Gly Gln Ser Ile Val Gly			
	85	90	95

Cys Lys Ala Ile Leu Ile Asp Asp Gln Val Phe Val Val Val Ala Gln  
                     100                    105                    110  
 Leu Phe Gly Gly Ser His Ile Tyr Lys Tyr Asp Glu Ser Trp Thr Lys  
                     115                    120                    125  
 Phe Val Lys Phe Gln Asp Ile Glu Val Ser Arg Ile Ser Lys Pro Asn  
                     130                    135                    140  
 Asp Ile Glu Leu Phe Gln Ile Asp Asp Glu Thr Phe Phe Val Ile Ala  
                     145                    150                    155                    160  
 Asp Ser Ser Lys Ala Gly Leu Ser Thr Val Tyr Lys Trp Asn Ser Lys  
                     165                    170                    175  
 Gly Phe Tyr Ser Tyr Gln Pro Leu Pro Gly Pro His His Pro Pro Val  
                     180                    185                    190  
 Glu

<210> 3961

<211> 267

<212> PRT

<213> Homo sapiens

<400> 3961

Met Val Arg Gly Ala Gly Pro Gly Pro Ser Leu Ser Ala Leu Ser His  
           1                    5                    10                    15  
 Pro Thr Gly Ala Ser Gly Met Ala Ala Ala Glu Gly Pro Gly Tyr Leu  
                     20                    25                    30  
 Val Ser Pro Gln Ala Glu Lys His Arg Arg Ala Arg Asn Trp Thr Asp  
                     35                    40                    45  
 Ala Glu Met Arg Gly Leu Met Leu Val Trp Glu Glu Phe Phe Asp Gly



50	55	60
Leu Lys Gln Thr Lys Arg Asn Ala Lys Val Tyr Glu Lys Met Ala Ser		
65	70	75
Lys Leu Phe Glu Met Thr Gly Glu Arg Arg Leu Gly Glu Glu Ile Lys		
85	90	95
Ile Lys Ile Thr Asn Met Thr Phe Gln Tyr Arg Lys Leu Lys Cys Met		
100	105	110
Thr Asp Ser Glu Ser Ala Pro Pro Asp Trp Pro Tyr Tyr Leu Ala Ile		
115	120	125
Asp Gly Ile Leu Ala Lys Val Pro Glu Ser Cys Asp Gly Lys Leu Pro		
130	135	140
Asp Ser Gln Pro Pro Gly Pro Ser Thr Ser Gln Thr Glu Ala Ser Leu		
145	150	155
Ser Pro Pro Ala Lys Ser Thr Pro Leu Tyr Phe Pro Tyr Asn Gln Cys		
165	170	175
Ser Tyr Glu Gly Arg Phe Glu Asp Asp Arg Ser Asp Ser Ser Ser Ser		
180	185	190
Leu Leu Ser Leu Lys Phe Arg Ser Glu Glu Arg Pro Val Lys Lys Arg		
195	200	205
Lys Val Gln Ser Cys His Leu Gln Lys Lys Gln Leu Arg Leu Leu Glu		
210	215	220
Ala Met Val Glu Glu Gln Arg Arg Leu Ser Arg Ala Val Glu Glu Thr		
225	230	235
Cys Arg Glu Ile Ser Arg Cys Tyr Ser Thr Val Cys Arg Arg Gly Cys		
245	250	255
Pro Val Ala Met Glu Trp Leu Trp Thr Leu Ser		
260	265	

&lt;210&gt; 3962

&lt;211&gt; 238

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3962

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Met Pro Gly Arg Thr Gly Leu Ala Gly Glu Met Pro Val Gly Trp Gly
 1             5             10             15
Pro Gly Arg Ala Gly Ala Ser Glu Pro Asn Glu Ser Thr Cys Ala Pro
             20             25             30
Glu Ala Leu Asp Gly His Leu Gly Val Ala Arg Arg Glu Gly Pro Ile
             35             40             45
Leu Gly Thr Leu Leu Gly Arg Gly Lys Gly His Cys Gln Ala Leu Ser
             50             55             60
Gln Leu Gly His Cys Pro Ser Pro Ala Trp Asn Asn Tyr Ser Gly Met
             65             70             75             80
Met Asp Ile Gly Val Ala Pro Ser Arg Val Gly Pro Ser Gly His Cys
             85             90             95
Gly Val Leu Arg Ser His Ser Arg Pro Gly Glu Leu Ala Val Val Met
             100            105            110
Asn His Lys Val Pro Arg His Arg Pro Val Ser Ser Val Gly Thr Glu
             115            120            125
Leu Leu Trp Val Arg Cys Ala Pro Lys Met Val Gln Leu Pro Ile Cys
             130            135            140
Cys Leu Leu Leu Thr Pro Ala Pro Gly Ile Gly Pro Arg Ala His Gly
             145            150            155            160
His Leu His Thr Asn Leu Glu Thr Arg Gly Leu Pro Arg Gly Thr Arg
             165            170            175
Glu Ser Gln Gln Ala Glu Gly Glu Gly Glu Ala Ile Gln Glu Gly Arg

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180	185	190
Gly Ala Cys Lys Arg Ala Gln Arg Lys Glu Gly Glu Gly Pro Arg Gly		
195	200	205
Pro Cys Val Val Arg Ala Gly Gly Val Gly Trp Gly Thr Arg Gln Val		
210	215	220
Ala Gly Glu Pro Pro Leu Val Asp Cys Ser Thr Ala Gly Thr		
225	230	235

&lt;210&gt; 3963

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3963

Met Arg Met Ala Pro Thr Glu Ser Thr Glu Gly Arg Arg Leu Trp Pro		
1	5	10
Gly Pro Arg Glu Gly Gly Ser Gly Lys Glu Thr Thr Ser Glu Lys Leu		
20	25	30
Ser Asn Leu Pro Arg Pro His Ser Tyr Ser Pro Lys Arg Ala Asp Ala		
35	40	45
Glu Ser Phe Arg Gly Val Pro Ala Ala Phe Lys Lys Cys Arg Glu Val		
50	55	60
Phe Arg Ala Cys Trp Gly Ser Arg Glu Leu Leu Phe Leu Phe Lys Ala		
65	70	75
Ile Ser Glu Ala Gly Pro Ala Gln Asn Ser Cys Gly Ile Thr Leu Glu		
85	90	95
Lys Ala Gly Gly Leu Glu Asp Thr Gly Ser His Trp Leu Ser Trp Ala		
100	105	110

Arg Cys Lys Val Leu Tyr Ile Asn Gly Phe Thr Asp Pro Trp Lys Asp  
 115 120 125  
 Ala Gln Ala Trp Ile Leu Ile Val Ser Cys Lys Lys Gly Lys Gly Thr  
 130 135 140  
 Pro Glu Arg Glu Gly Arg Asn  
 145 150

<210> 3964

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3964

Met Pro Trp Gly Gly Val Gly Ala Gln Pro Pro Leu Phe Tyr Leu Leu  
 1 5 10 15  
 Gly Lys Gly Leu Gln Trp Gly Leu Glu Tyr Arg Gly Phe His Gly Ser  
 20 25 30  
 Pro Gly Asp Pro Glu His Phe Tyr Ser Phe Tyr Gln Asp Lys Glu Gly  
 35 40 45  
 Leu Cys Ile Arg Leu Ser Thr Leu Asn Trp Phe Leu Trp Cys Phe Ile  
 50 55 60  
 Asp Glu Ile Arg Met His Arg Arg Pro Gln Ala Arg Tyr Leu Leu Ser  
 65 70 75 80  
 Pro Gln Cys Ser Ala Pro Pro Ala Gln Gly Ser Gly Phe Pro Arg Arg  
 85 90 95  
 Thr Gln Leu Thr Pro Thr Pro Gln Glu Ala Gln Ala Gly Leu Cys Arg  
 100 105 110  
 Ala His Lys Pro Gly Pro Val

115

&lt;210&gt; 3965

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3965

Met Arg Phe Pro Ser Pro Gly Pro Val Lys Asn Val Asp Gly Asp Trp  
1 5 10 15  
Thr Thr Val Lys Met Gln Val Tyr Gln Asp Ala Pro Ser Thr Thr Leu  
20 25 30  
Cys Ala Gly Pro Gly Pro Thr Tyr Leu Gln Pro Leu Ala Val Leu Arg  
35 40 45  
Gly Arg Cys His Pro Ser Cys Leu Gln Arg Ser Arg His Ser Gln Leu  
50 55 60  
Arg Arg Thr Val Ala Glu Gln Ile Leu His Leu Phe Thr Gly Val Leu  
65 70 75 80  
His Arg Asn Ala Ile Phe Leu Leu Val Ser Val Ala Ser His Ser Glu  
85 90 95  
Val Arg Arg Gly Asp  
100

&lt;210&gt; 3966

&lt;211&gt; 1197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3966

Met Ser Asp Glu Asn Met Ser Lys Thr Gln Thr Val Tyr Asp Ser Asp  
 1 5 10 15  
 Ser Gln Ser Gly Ser Ser Ala Lys Glu Lys Asp Arg Gly Ala Asn Leu  
 20 25 30  
 Cys Val Met Asp His Phe Met Lys Ile Phe Leu Tyr Cys Arg Arg Ala  
 35 40 45  
 Met Val Leu Ala His Arg Gly Gly Tyr Trp Thr Leu Leu Gln Asn Cys  
 50 55 60  
 Cys Arg Ala Leu Trp Asn Phe Thr Gln Glu Leu Gln Ile Leu Leu Lys  
 65 70 75 80  
 Gln Ala Val Asp Leu Asp Lys Thr Phe Pro Ile Ser Gln Asp Gly Phe  
 85 90 95  
 Phe Cys Thr Ser Val Leu Pro Phe Tyr Leu Gly Ala Glu Leu Leu Ile  
 100 105 110  
 Asp Met Leu Ile Gln Leu Gln Asn Thr Ser Ser Ile Lys Pro Ile Glu  
 115 120 125  
 Asp Lys Gly Glu Phe Ser Val Pro Ser Cys Tyr Gly Asn Ile Lys Asn  
 130 135 140  
 Asp Asn Gly Gly Ser Ser Leu Thr Phe Glu His Pro Leu Asp Asp Val  
 145 150 155 160  
 Asn Val Val Asp Leu Lys Trp Ile His Asp Phe Val Leu Lys Ser Leu  
 165 170 175  
 Glu Val Leu Tyr Gln Val Glu Lys Trp Glu Thr Leu Val Ser Leu Ala  
 180 185 190  
 Ile Gln Phe Asn Thr Val Ser His Glu Arg Tyr Thr Glu Gln Val Thr  
 195 200 205  
 Pro Leu Leu Val Tyr Ala Gln Arg Gln Leu Leu Leu Arg Ile Gln Lys

210 215 220  
Phe Lys Gly Pro Asp Ile Thr Gln Gln Pro Cys Ala Arg Tyr Glu Ala  
225 230 235 240  
Glu Tyr Gly Glu Lys Ile Thr Cys Arg Asn Phe Ile Gly Lys Gln Leu  
245 250 255  
Lys Ile Asn Ser Ser Thr Ile Glu Ala Thr Ser Asn Cys Thr Asp Leu  
260 265 270  
Leu Lys Met Leu Ile Ser Ser Glu Tyr Ser Arg Ala Lys Ala Leu Val  
275 280 285  
Cys Val Pro Val Asp Val Thr Asp Thr Leu Arg Cys Phe Arg Glu Thr  
290 295 300  
Leu Glu Lys Ser Lys Tyr His Asn Arg Ser Ile Arg His Ser Arg Lys  
305 310 315 320  
Leu Leu Ser Leu Phe Leu Ala Gln Thr Gln Asp Val Leu Gln Ala Ser  
325 330 335  
Asn Gln Arg Ser Leu Lys Val Gln Ala Leu His Ser Leu Gly Ser Leu  
340 345 350  
Leu Ile Phe Ala Glu Lys Lys Arg Ala Ala Phe Lys Cys Trp Cys Gln  
355 360 365  
Ala Leu Asp Asp Ile Phe Arg Lys Pro Asp Val Leu His Thr Trp Lys  
370 375 380  
Glu Phe Gly Pro Ser Leu Thr Asn Val Thr Asn Ser His Ser Pro Pro  
385 390 395 400  
Gly Phe Lys Asp Tyr Ser Glu Glu Phe Leu Ser Arg Val Gly Ile Trp  
405 410 415  
Gly Cys Leu Gln Gly Ala Val Ile Ser Ala Lys Ile Ala Gln Phe Ile  
420 425 430  
Lys Ser Leu Asn Val Glu Lys Lys Thr Asp Cys Cys Ile Leu Ser Ala  
435 440 445

Leu Leu Phe Gln Gly Leu Leu Arg Thr Thr Leu Pro His Pro Lys Ala  
 450 455 460  
 Glu Arg Cys Tyr Ala Gln Tyr Glu Ile Thr Gln Leu Leu Pro Gly Ile  
 465 470 475 480  
 Glu Leu Phe Ser Asp Arg Tyr Arg Ala Asp Ile Cys Ser Val Ile Ala  
 485 490 495  
 Ser Leu Tyr Tyr Ile Ile Arg Glu Leu His Phe Val Arg Gln Asn Leu  
 500 505 510  
 Ile Val Leu Pro Leu Leu Ala Leu Tyr Gln Tyr Phe Val Ser Gly Ile  
 515 520 525  
 Cys Gln Asp Ile Thr Arg Asn Leu Glu Ala Arg Ile Leu Lys Ile Glu  
 530 535 540  
 Val Leu Ile Asp Leu Arg Phe Phe Ser Glu Ala Phe Tyr Glu Ile Ser  
 545 550 555 560  
 Gln Ile Phe Tyr Gly Lys Asn Met Pro Cys Pro Ile Pro Ala Gly Tyr  
 565 570 575  
 Lys Ala Thr Gly Lys Met Lys Ile Phe Gln Ser Phe Asp Ser Gly Lys  
 580 585 590  
 Pro Leu Thr Ser Lys Glu Asn Ile Gln Ala Ile Asp Glu Leu Arg Asn  
 595 600 605  
 Lys Gly Leu Pro Ala Val Leu Val Thr Ile Gly Gln Pro His Leu Leu  
 610 615 620  
 Asn Lys Phe Asn Phe Val Lys Ala Tyr Phe Phe Leu Ser Val Ala Ala  
 625 630 635 640  
 Thr Ile Asn Cys Val Pro Glu Asn Lys Phe Lys Thr Val Ile Thr Asn  
 645 650 655  
 Lys Ser Lys Pro Asn Leu Pro Asn Leu Lys Glu Ile Tyr Ser Lys Asp  
 660 665 670  
 Asp Gly Ser Ser Phe Tyr Asn Leu Thr Lys Leu Lys Asp Glu Ile Thr



675 680 685  
Leu Ser Met Leu Lys Ser Met Leu Leu Met Glu Ala Glu Asp Arg Leu  
690 695 700  
Asn Phe Leu Leu Ser Glu Val Glu Gln Lys Thr Leu Ser Gln Cys Ser  
705 710 715 720  
Ala Gly Glu Leu Glu Ile Val Val Glu Ala Arg Leu Gln Leu Ala Ala  
725 730 735  
Val Ala Leu Gln Arg His Arg Ala Ala Tyr Ser Ala Ala Ile Val Phe  
740 745 750  
Ser Thr Leu Thr Leu Leu Gln Asp Ser Lys Leu Phe Glu Lys Lys Val  
755 760 765  
Val Gln Asp Asp Thr Glu Asn Pro Val Ser Pro Gly Thr Ser Val Thr  
770 775 780  
Glu Asn Lys Asp Asp Asn Glu Phe Leu Asp Pro Ile Ser Leu Asn Ala  
785 790 795 800  
Arg Glu Tyr Phe Asn Ile His Leu Trp Leu Arg Cys Arg Leu Ala Leu  
805 810 815  
Val Thr Ala Phe Val Ala Gln Ile His Gly Ile Gly Ile Val Lys Glu  
820 825 830  
Asp Asp Met Thr Asp Cys Leu Ser Leu Ile Asn Glu Val Cys Met Glu  
835 840 845  
Ala Lys Ser Ala Gly Asp Thr Glu Leu Gln Ala Glu Phe Leu Thr Gln  
850 855 860  
Ala Val Ile Leu Gly Leu Gln Glu Lys His Leu Lys Ala Asp Ile Met  
865 870 875 880  
Thr Asn Leu Gln Asp Ile Ile His Leu Leu Glu Gly Asn Glu Phe Ile  
885 890 895  
Ser Pro Gln Ser Arg Leu Thr Leu Ala Arg Ser Leu Val Leu Leu Asp  
900 905 910

Asp Leu Thr Lys Ala Glu Lys Phe Lys Glu Ser Pro Ser Ser Lys Thr  
915 920 925

Gly Lys Leu Asn Leu Leu Thr Arg Ala His Ser Ile Leu Thr Glu Gln  
930 935 940

Met Leu Ala Phe Gly Glu Thr Ile Glu Phe Arg Ser Ser Asn Thr Lys  
945 950 955 960

Tyr Ala Asn Pro Leu Gln Pro Leu Lys Asn Ile Tyr Leu Pro His Val  
965 970 975

Met Leu Leu Ala Lys Ile Lys Met Arg Ile Gly His Thr Val Ala Lys  
980 985 990

Gln Val Tyr Tyr Lys Asn Lys Arg Lys Asp Pro Ser Lys Trp Leu Pro  
995 1000 1005

Ala Leu His Leu Phe Asp Val Ala Leu Lys Leu Cys Arg Thr Thr Ala  
1010 1015 1020

Val Glu Glu His Glu Val Glu Ala Glu Ile Leu Phe Gln Lys Gly Lys  
1025 1030 1035 1040

Ile Glu Arg Gln Ile Leu Met Glu Glu Lys Ser Pro Ser Phe Gln Leu  
1045 1050 1055

Glu Ser Leu Tyr Glu Ala Ile Gln Leu Ser Leu Lys Asn Asp Gln Asn  
1060 1065 1070

Ser Gly Leu Ile Arg Asp Ser Tyr Leu Glu Met Ala Leu Leu Tyr Phe  
1075 1080 1085

His Leu Lys Lys Pro Lys Ile Lys Ile Ser Gly Ser Pro Leu Thr Leu  
1090 1095 1100

Lys Pro Pro Leu Arg Arg Ser Ser Ser Val Lys Glu Thr Ser Ala Asn  
1105 1110 1115 1120

Lys Phe Glu Met Tyr Ser Ser Leu Ala Trp Ile Ala Ile Arg Ala Ala  
1125 1130 1135

Ala Gln Val Ser Glu Ala Val Leu Ala Ile Asn Leu Leu Ile Gly Lys

1140	1145	1150
Lys Asn Thr Arg Met His Lys Val Asn Gln Val Ala Leu Pro Asn Ile		
1155	1160	1165
Pro Glu Phe Ala Ala Leu Asp Leu Leu Ser Ser Tyr Thr Asp Tyr Leu		
1170	1175	1180
Leu Gly Met Phe Gly Cys Leu His Ile Met Gln Lys Asn		
1185	1190	1195

&lt;210&gt; 3967

&lt;211&gt; 510

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3967

Met Val Gly Met Phe Cys Phe Leu Ile Phe Leu Gln Ser Leu Leu Gly		
1	5	10
Phe Gly Thr Lys Ala Val Leu Ala Ser Gln Arg Val Gly Lys Cys Cys		
20	25	30
Ser Phe Leu Leu Ala Arg Asn Thr Met Ala Gly Thr Arg Arg Val Glu		
35	40	45
Gly Gln Val Gly Gly Arg Pro Gly Gly Pro Gly Cys Ser Leu Met Pro		
50	55	60
Pro Pro Pro Gln Glu Cys Ala Gly Glu Pro Leu Phe Met Leu Tyr Cys		
65	70	75
Ala Ile Lys Gln Gln Met Glu Lys Gly Pro Ile Asp Ala Ile Thr Gly		
85	90	95
Glu Ala Arg Tyr Ser Leu Ser Glu Asp Lys Leu Ile Arg Gln Gln Ile		
100	105	110

Asp Tyr Lys Thr Leu Thr Leu Asn Cys Val Asn Pro Glu Asn Glu Asn  
 115 120 125  
 Ala Pro Glu Val Pro Val Lys Gly Leu Asp Cys Asp Thr Val Thr Gln  
 130 135 140  
 Ala Lys Glu Lys Leu Leu Asp Ala Ala Tyr Lys Gly Val Pro Tyr Ser  
 145 150 155 160  
 Gln Arg Pro Lys Ala Ala Asp Met Asp Leu Glu Trp Arg Gln Gly Arg  
 165 170 175  
 Met Ala Arg Ile Ile Leu Gln Asp Glu Asp Val Thr Thr Lys Ile Asp  
 180 185 190  
 Asn Asp Trp Lys Arg Leu Asn Thr Leu Ala His Tyr Gln Val Thr Asp  
 195 200 205  
 Gly Ser Ser Val Ala Leu Val Pro Lys Gln Thr Ser Ala Tyr Asn Ile  
 210 215 220  
 Ser Asn Ser Ser Thr Phe Thr Lys Ser Leu Ser Arg Tyr Glu Ser Met  
 225 230 235 240  
 Leu Arg Thr Ala Ser Ser Pro Asp Ser Leu Arg Ser Arg Thr Pro Met  
 245 250 255  
 Ile Thr Pro Asp Leu Glu Ser Gly Thr Lys Leu Trp His Leu Val Lys  
 260 265 270  
 Asn His Asp His Leu Asp Gln Arg Glu Gly Asp Arg Gly Ser Lys Met  
 275 280 285  
 Val Ser Glu Ile Tyr Leu Thr Arg Leu Leu Ala Thr Lys Gly Thr Leu  
 290 295 300  
 Gln Lys Phe Val Asp Asp Leu Phe Glu Thr Ile Phe Ser Thr Ala His  
 305 310 315 320  
 Arg Gly Ser Ala Leu Pro Leu Ala Ile Lys Tyr Met Phe Asp Phe Leu  
 325 330 335  
 Asp Glu Gln Ala Asp Lys His Gln Ile His Asp Ala Asp Val Arg His

340	345	350
Thr Trp Lys Ser Asn Cys Leu Pro Leu Arg Phe Trp Val Asn Val Ile		
355	360	365
Lys Asn Pro Gln Phe Val Phe Asp Ile His Lys Asn Ser Thr Thr Asp		
370	375	380
Ala Cys Leu Ser Val Val Ala Gln Thr Phe Met Asp Ser Cys Ser Thr		
385	390	395
Ser Glu His Lys Leu Gly Lys Asp Ser Pro Ser Asn Lys Leu Leu Tyr		
405	410	415
Ala Lys Asp Ile Pro Asn Tyr Lys Ser Trp Val Glu Arg Tyr Tyr Ala		
420	425	430
Asp Ile Ala Lys Met Pro Ala Ile Ser Asp Gln Asp Met Ser Ala Tyr		
435	440	445
Leu Ala Glu Gln Ser Arg Leu His Leu Ser Gln Phe Asn Ser Met Ser		
450	455	460
Ala Leu His Glu Ile Tyr Ser Tyr Ile Thr Lys Tyr Lys Asp Glu Ile		
465	470	475
Leu Ala Ala Leu Glu Lys Asp Glu Gln Ala Arg Arg Gln Arg Leu Arg		
485	490	495
Ser Lys Leu Glu Gln Val Val Asp Thr Met Ala Leu Ser Ser		
500	505	510

&lt;210&gt; 3968

&lt;211&gt; 1078

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3968

Met Ser Ser Ser Asp Gly Lys Val Leu Pro Leu Asn Val Gln Val Val  
 1 5 10 15  
 Thr Gln His Met Gln Ser Val Lys Gln Ala Pro Lys Thr Pro Gln Asn  
 20 25 30  
 Val Pro Ala Ser Pro Gly Gly Asp Arg Ser Ala Arg His Arg Tyr Pro  
 35 40 45  
 Gln Ile Leu Pro Lys Pro Ala Asn Thr Ser Ala Leu Thr Ile Arg Ser  
 50 55 60  
 Pro Thr Thr Val Leu Phe Thr Ser Ser Pro Ile Lys Thr Ala Val Val  
 65 70 75 80  
 Pro Ala Ser His Met Ser Ser Leu Asn Val Val Lys Met Thr Thr Ile  
 85 90 95  
 Ser Leu Thr Pro Ser Asn Ser Asn Thr Pro Leu Lys His Ser Ala Ser  
 100 105 110  
 Val Ser Ser Ala Thr Gly Thr Thr Glu Glu Ser Arg Ser Val Pro Gln  
 115 120 125  
 Ile Lys Asn Gly Ser Val Val Ser Leu Gln Ser Pro Gly Ser Arg Ser  
 130 135 140  
 Ser Ser Ala Gly Gly Thr Ser Ala Val Glu Val Lys Val Glu Pro Glu  
 145 150 155 160  
 Thr Ser Ser Asp Glu His Pro Val Gln Cys Gln Glu Asn Ser Asp Glu  
 165 170 175  
 Ala Lys Ala Pro Gln Thr Pro Ser Ala Leu Leu Gly Gln Lys Ser Asn  
 180 185 190  
 Thr Asp Gly Ala Leu Gln Lys Pro Ser Asn Glu Gly Val Ile Glu Ile  
 195 200 205  
 Lys Ala Thr Lys Val Cys Asp Gln Arg Thr Lys Cys Lys Ser Arg Cys  
 210 215 220  
 Asn Lys Met Leu Pro Gly Thr Ser Thr Gly Asn Asn Gln Ser Thr Ile

出証特 2 0 0 4 - 3 0 5 9 6 6 0

Ile Gln Ala His Ser Ser Asp Gln Leu Pro Leu Gln Ser Glu Leu Lys  
465 470 475 480  
Glu Phe Glu Pro Ser Val Ser Gln Thr Asn Glu Ser Tyr Phe Pro Phe  
485 490 495  
Asp Asp Glu Leu Thr Gln Asp Ser Ile Val Glu Glu Leu Val Leu Met  
500 505 510  
Glu Gln Gln Met Ser Met Asn Asn Ser His Ser Tyr Gly Asn Cys Leu  
515 520 525  
Gly Met Thr Leu Gln Ser Gln Ser Val Thr Pro Gly Ala Pro Met Ser  
530 535 540  
Ser His Thr Ser Ser Thr His Phe Tyr His Pro Ile His Ser Asn Gly  
545 550 555 560  
Thr Pro Ile His Thr Pro Thr Pro Thr Pro Thr Pro Thr Pro Thr Pro  
565 570 575  
Thr Pro Thr Pro Thr Pro Thr Ser Glu Met Ile Ala Gly Ser Gln Ser  
580 585 590  
Leu Ser Arg Glu Ser Pro Cys Ser Arg Leu Ala Gln Thr Thr Pro Val  
595 600 605  
Asp Ser Ala Leu Gly Ser Ser Arg His Thr Pro Ile Gly Thr Pro His  
610 615 620  
Ser Asn Cys Ser Ser Ser Val Pro Pro Ser Pro Val Glu Cys Arg Asn  
625 630 635 640  
Pro Phe Ala Phe Thr Pro Ile Ser Ser Ser Met Ala Tyr His Asp Ala  
645 650 655  
Ser Ile Val Ser Ser Ser Pro Val Lys Pro Met Gln Arg Pro Met Ala  
660 665 670  
Thr His Pro Asp Lys Thr Lys Leu Glu Trp Met Asn Asn Gly Tyr Ser  
675 680 685  
Gly Val Gly Asn Ser Ser Val Ser Gly His Gly Ile Leu Pro Ser Tyr



690 695 700  
Gln Glu Leu Val Glu Asp Arg Phe Arg Lys Pro His Ala Phe Ala Val  
705 710 715 720  
Pro Gly Gln Ser Tyr Gln Ser Gln Ser Arg His His Asp Thr His Phe  
725 730 735  
Gly Arg Leu Thr Pro Val Ser Pro Val Gln His Gln Gly Ala Thr Val  
740 745 750  
Asn Asn Thr Asn Lys Gln Glu Gly Phe Ala Val Pro Ala Pro Leu Asp  
755 760 765  
Asn Lys Gly Thr Asn Ser Ser Ala Ser Ser Asn Phe Arg Cys Arg Ser  
770 775 780  
Val Ser Pro Ala Val His Arg Gln Arg Asn Leu Ser Gly Ser Thr Leu  
785 790 795 800  
Tyr Pro Val Ser Asn Ile Pro Arg Ser Asn Val Thr Pro Phe Gly Ser  
805 810 815  
Pro Val Thr Pro Glu Val His Val Phe Thr Asn Val His Thr Asp Ala  
820 825 830  
Cys Ala Asn Asn Ile Ala Gln Arg Ser Gln Ser Val Pro Leu Thr Val  
835 840 845  
Met Met Gln Thr Ala Phe Pro Asn Ala Leu Gln Lys Gln Ala Asn Ser  
850 855 860  
Lys Lys Ile Thr Asn Val Leu Leu Ser Lys Leu Asp Ser Asp Asn Asp  
865 870 875 880  
Asp Ala Val Arg Gly Leu Gly Met Asn Asn Leu Pro Ser Asn Tyr Thr  
885 890 895  
Ala Arg Met Asn Leu Thr Gln Ile Leu Glu Pro Ser Thr Val Phe Pro  
900 905 910  
Ser Ala Asn Pro Gln Asn Met Ile Asp Ser Ser Thr Ser Val Tyr Glu  
915 920 925

Phe Gln Thr Pro Ser Tyr Leu Thr Lys Ser Asn Ser Thr Gly Gln Ile  
 930 935 940

Asn Phe Ser Pro Gly Asp Asn Gln Ala Gln Ser Glu Ile Gly Glu Gln  
 945 950 955 960

Gln Leu Asp Phe Asn Ser Thr Val Lys Asp Leu Leu Ser Gly Asp Ser  
 965 970 975

Leu Gln Thr Asn Gln Gln Leu Val Gly Gln Gly Ala Ser Asp Leu Thr  
 980 985 990

Asn Thr Ala Ser Asp Phe Ser Ser Asp Ile Arg Leu Ser Ser Glu Leu  
 995 1000 1005

Ser Gly Ser Ile Asn Asp Leu Asn Thr Leu Asp Pro Asn Leu Leu Phe  
 1010 1015 1020

Asp Pro Gly Arg Gln Gln Gly Gln Asp Asp Glu Ala Thr Leu Glu Glu  
 1025 1030 1035 1040

Leu Lys Asn Asp Pro Leu Phe Gln Gln Ile Cys Ser Glu Ser Met Asn  
 1045 1050 1055

Ser Met Thr Ser Ser Gly Phe Glu Trp Ile Glu Ser Lys Asp His Pro  
 1060 1065 1070

Thr Val Glu Met Leu Gly  
 1075

<210> 3969

<211> 988

<212> PRT

<213> Homo sapiens

<400> 3969

Met Ser Ala Gly Asp Ala Lys Asn Leu Leu Asp Thr Lys Leu Pro Thr

1	5	10	15												
Ser	Glu	Leu	Lys	Ile	Tyr	Ala	Lys	Asp	Ile	Ile	Ile	Asn	Ile	Leu	Glu
20	25	30													
Thr	Ile	Val	Lys	Glu	Phe	Gly	Lys	Val	Lys	Gln	Thr	Lys	Ala	Leu	Pro
35	40	45													
Ser	Asp	Gln	Ile	Ile	Ala	Ala	Gly	Lys	Ile	Val	Asn	Thr	Val	Leu	Gln
50	55	60													
Glu	Leu	Tyr	Val	Thr	Asn	Asn	Cys	Asn	Leu	Ala	Tyr	Pro	Met	Lys	Ser
65	70	75	80												
Ser	His	Leu	Arg	Leu	Ser	Gln	Gly	Asn	Ile	Gly	Thr	Gly	Ser	Leu	Pro
85	90	95													
Lys	Gln	Gln	Ala	Cys	Phe	Tyr	Leu	Glu	Asn	Val	Ser	Ser	Gln	Leu	Glu
100	105	110													
His	Ile	Phe	Pro	Arg	Glu	Gly	Ile	Phe	Lys	Lys	Leu	Phe	Asp	Lys	Trp
115	120	125													
Gln	Thr	Glu	Ser	Asn	Asp	Lys	Glu	Asn	Glu	Lys	Cys	Lys	Leu	Leu	Met
130	135	140													
Ile	Ala	Glu	Asn	Val	Leu	Thr	Glu	Ile	Ser	Ile	Lys	Ala	Lys	Glu	Leu
145	150	155	160												
Glu	Tyr	Ser	Leu	Ser	Leu	Leu	Asn	Leu	Pro	Pro	Leu	Glu	Asn	Cys	Glu
165	170	175													
Ser	Arg	Phe	Tyr	Asn	His	Phe	Lys	Gly	Ala	Ser	Thr	Arg	Ala	Glu	Asp
180	185	190													
Thr	Lys	Ala	Gln	Ile	Asn	Met	Phe	Gly	Arg	Glu	Ile	Val	Glu	Met	Leu
195	200	205													
Leu	Glu	Lys	Leu	Gln	Leu	Cys	Phe	Leu	Ser	Gln	Ile	Pro	Thr	Pro	Asp
210	215	220													
Ser	Glu	Glu	Thr	Leu	Ser	Asn	Ser	Lys	Glu	His	Ile	Thr	Ala	Lys	Ser
225	230	235	240												

Lys Tyr Gly Phe Pro Asn Lys His Ser Leu Ser Ser Leu Pro Ile Tyr  
245 250 255  
Asn Thr Lys Thr Lys Asp Gln Ile Ser Val Gly Ser Ser Asn Gln Ile  
260 265 270  
Val Gln Glu Ile Val Glu Thr Val Leu Asn Met Leu Glu Ser Phe Val  
275 280 285  
Asp Leu Gln Phe Lys His Ile Ser Lys Tyr Glu Phe Ser Glu Ile Val  
290 295 300  
Lys Met Pro Ile Glu Asn Leu Ser Ser Ile Gln Gln Lys Leu Leu Asn  
305 310 315 320  
Lys Lys Arg Leu Pro Lys Leu Gln Pro Leu Lys Met Phe Ser Asp Lys  
325 330 335  
Ser Glu Ser Asn Thr Ile Asn Phe Lys Glu Asn Ile Gln Asn Ile Leu  
340 345 350  
Leu Arg Val His Ser Phe His Ser Gln Leu Leu Thr Tyr Ala Val Asn  
355 360 365  
Ile Ile Ser Asp Met Leu Ala Val Ile Lys Asn Lys Leu Asp Asn Glu  
370 375 380  
Ile Ser Gln Met Glu Pro Ser Ser Ile Ser Ile Leu Lys Glu Asn Ile  
385 390 395 400  
Val Ala Ser Glu Ile Ile Gly Thr Leu Met Asp Gln Cys Thr Tyr Phe  
405 410 415  
Asn Glu Ser Leu Ile Gln Asn Leu Ser Arg Glu Ser Leu Phe Gln Gly  
420 425 430  
Ala Glu Asn Ala Tyr Thr Val Asn Gln Val Glu Leu Ala Thr Asn Met  
435 440 445  
Lys Met Phe Thr Ser Lys Leu Lys Glu Gly Ser Leu Gly Ile Asn Pro  
450 455 460  
Ser Gln Val Ser Lys Thr Gly Phe Val Phe Cys Ser Asp Glu Asp Met

465                      470                      475                      480  
Lys Glu Lys Tyr Arg Val Ser Ser Asp Leu Pro Thr Ser Val Arg Ser  
                         485                      490                      495  
Ser Val Glu Asp Thr Val Lys Asn Ser Glu Pro Thr Lys Arg Pro Asp  
                         500                      505                      510  
Ser Glu Thr Met Pro Ser Cys Ser Thr Arg Asn Lys Val Gln Asp His  
                         515                      520                      525  
Arg Pro Arg Glu Ser Asn Phe Gly Ser Phe Asp Gln Thr Met Lys Gly  
                         530                      535                      540  
Asn Ser Tyr Leu Pro Glu Gly Ser Phe Leu Gln Lys Leu Leu Arg Lys  
545                      550                      555                      560  
Ala Ser Asp Ser Thr Glu Ala Ala Leu Lys Gln Val Leu Ser Phe Ile  
                         565                      570                      575  
Glu Met Gly Lys Gly Glu Asn Leu Arg Val Phe His Tyr Glu Asn Leu  
                         580                      585                      590  
Lys Pro Val Val Glu Pro Asn Gln Ile Gln Thr Thr Ile Ser Pro Leu  
                         595                      600                      605  
Lys Ile Cys Leu Ala Ala Glu Asn Ile Val Asn Thr Val Leu Ser Ser  
                         610                      615                      620  
Cys Gly Phe Pro Ser Gln Pro His Thr Asn Glu Asn Arg Glu Ile Met  
625                      630                      635                      640  
Lys Pro Phe Phe Ile Ser Lys Gln Ser Ser Leu Ser Glu Val Ser Gly  
                         645                      650                      655  
Gly Gln Lys Asp Asn Glu Lys Ser Leu Leu Arg Met Gln Asp Lys Lys  
                         660                      665                      670  
Ile Asn Tyr Ile Pro Glu Glu Glu Asn Glu Asn Leu Glu Ala Ser Arg  
                         675                      680                      685  
Glu Asp Ser Ser Phe Leu Gln Lys Leu Lys Lys Lys Glu Tyr Pro Lys  
                         690                      695                      700

Ile Glu Thr Val Lys Glu Val Glu Ala Phe Thr Phe Ala Asp His Glu  
705 710 715 720  
Met Gly Ser Asn Glu Val His Leu Ile Ala Arg His Val Thr Thr Ser  
725 730 735  
Val Val Thr Tyr Leu Lys Asn Phe Glu Thr Thr Val Phe Ser Glu Glu  
740 745 750  
Lys Met Ser Val Ser Thr Trp Ser Arg Lys Lys Tyr Glu Ser Lys Gln  
755 760 765  
Phe Leu Arg Asn Ile Tyr Asp Asp Ser Ser Ile Tyr Gln Cys Cys Glu  
770 775 780  
His Leu Thr Glu Ser Val Leu Tyr His Leu Thr Ser Ser Ile Ser Asp  
785 790 795 800  
Gly Thr Lys Lys Gly Arg Glu Lys Glu Lys Ala Trp Glu Ile Gln Glu  
805 810 815  
Ala Thr Phe Ser Lys Ile Ile Ser Ile His Ser Gln Val Phe Glu Ser  
820 825 830  
Arg Ser Ile Ser Ile Gly Glu Leu Ala Leu Cys Ile Ser Glu Ile Ile  
835 840 845  
Ile Lys Ile Leu Phe Asn Asn Lys Ile Ile Gln Ala Asp Ile Ala Gln  
850 855 860  
Lys Met Val Ala Ile Pro Thr Lys Tyr Thr Tyr Cys Pro Gly Ile Val  
865 870 875 880  
Ser Gly Gly Phe Asp Asp Leu Phe Gln Asp Leu Leu Val Gly Val Ile  
885 890 895  
His Val Leu Ser Lys Glu Ile Glu Val Asp Tyr His Phe Glu Ser Asn  
900 905 910  
Val Arg Asp Lys Ser Phe Ser Met His Arg Asn Asn Ser Val Pro Ile  
915 920 925  
Cys Asn Lys Ile Asn Arg Gln Ala Ser Pro Arg Asp Trp Gln Phe Ser

930                      935                      940  
 Thr Gln Gln Ile Gly Gln Leu Phe Gln Lys Asn Lys Leu Ser Tyr Leu  
 945                      950                      955                      960  
 Ala Cys Lys Leu Asn Ser Leu Val Gly Asn Leu Lys Thr Ser Glu Ser  
                          965                      970                      975  
 Lys Glu Val Val Asn Lys Val Phe Asn Ile Val Ser  
                          980                      985

<210> 3970

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3970

Met Gln Ser Trp Gly Pro Pro Ala Pro Pro Ala Ser Ser Ser Leu Arg  
 1                      5                      10                      15  
 Ala Pro His Gln Lys Val Leu Thr Arg Lys Ser Ile Pro Phe Leu Gln  
                          20                      25                      30  
 His Arg Pro Leu Gly Pro Cys Ser Leu His Leu His Pro Leu Ser His  
                          35                      40                      45  
 His Ser Pro His Pro His Ser Ser His Arg Ser Arg Ser Ser Ser Trp  
                          50                      55                      60  
 Ala Ile Pro Thr Thr Pro Pro Arg Val Ser Pro Ala Pro Pro Cys Ala  
 65                      70                      75                      80  
 Gly Gln Cys Pro Pro Pro Gly Pro Asp Leu Pro Pro Ser Trp Pro Leu  
                          85                      90                      95  
 Pro Arg Pro Glu Pro Ser Val His Ala Ala Val Thr Thr Val Arg Leu  
                          100                      105                      110

Ala

&lt;210&gt; 3971

&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3971

Met	Glu	Val	Leu	Ser	Gly	Val	Ala	Lys	Gly	Tyr	Asn	Ile	Cys	Leu	Phe
1				5					10					15	
Ala	Tyr	Gly	Gln	Thr	Gly	Ser	Gly	Lys	Thr	Tyr	Thr	Met	Leu	Gly	Thr
			20					25					30		
Pro	Ala	Ser	Val	Gly	Leu	Thr	Pro	Arg	Ile	Cys	Glu	Gly	Leu	Phe	Val
		35					40					45			
Arg	Glu	Lys	Asp	Cys	Ala	Ser	Leu	Pro	Ser	Ser	Cys	Arg	Ile	Lys	Val
	50					55						60			
Ser	Phe	Leu	Glu	Ile	Tyr	Asn	Glu	Arg	Val	Arg	Asp	Leu	Leu	Lys	Gln
65				70					75					80	
Ser	Gly	Gln	Lys	Lys	Ser	Tyr	Thr	Leu	Arg	Val	Arg	Glu	His	Pro	Glu
			85						90					95	
Met	Gly	Pro	Tyr	Val	Gln	Gly	Leu	Ser	Gln	His	Val	Val	Thr	Asn	Tyr
		100						105					110		
Lys	Gln	Val	Ile	Gln	Leu	Leu	Glu	Glu	Gly	Ile	Ala	Asn	Arg	Ile	Thr
		115						120					125		
Ala	Ala	Thr	His	Val	His	Glu	Ala	Ser	Ser	Arg	Ser	His	Ala	Ile	Phe
		130						135					140		
Thr	Ile	His	Tyr	Thr	Gln	Ala	Ile	Leu	Glu	Asn	Asn	Leu	Pro	Ser	Glu



145                      150                      155                      160  
Met Ala Ser Lys Ile Asn Leu Val Asp Leu Ala Gly Ser Glu Arg Ala  
                         165                      170                      175  
Asp Pro Ser Tyr Cys Lys Asp Arg Ile Ala Glu Gly Ala Asn Ile Asn  
                         180                      185                      190  
Lys Ser Leu Val Thr Leu Gly Ile Val Ile Ser Thr Leu Ala Gln Asn  
                         195                      200                      205  
Ser Gln Val Phe Ser Ser Cys Gln Ser Leu Asn Ser Ser Val Ser Asn  
                         210                      215                      220  
Gly Gly Asp Ser Gly Ile Leu Ser Ser Pro Ser Gly Thr Ser Ser Gly  
225                      230                      235                      240  
Gly Ala Pro Ser Arg Arg Gln Ser Tyr Ile Pro Tyr Arg Asp Ser Val  
                         245                      250                      255  
Leu Thr Trp Leu Leu Lys Asp Ser Leu Gly Gly Asn Ser Lys Thr Ile  
                         260                      265                      270  
Met Val Ala Ser Glu Trp Asp Ala Arg Ala Gly Pro Val Leu Gly Leu  
                         275                      280                      285  
Val Leu Tyr Leu Arg Glu Arg Ala Met Ala Pro Val Ser Gly Met Pro  
                         290                      295                      300  
Glu Leu Asp Leu Cys Trp Asp Trp Tyr Ser Ile Ser Glu Lys Gly Pro  
305                      310                      315                      320  
Trp Pro Gln

&lt;210&gt; 3972

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3972

Met Arg Val Thr Leu Gly Leu Glu Gln Arg Asp Thr Ala Glu Trp Pro

1 5 10 15

Leu Val Pro Arg Thr Arg Gln Ser Ser Arg Thr Gly Cys Lys Pro Ala

20 25 30

Ile Val Ala Met Pro Val Trp Glu Thr Gln Leu Ala Leu Asp Phe Ser

35 40 45

Gly Asn His His Val Arg His Ser His Phe His Pro Ser Gln Gly Phe

50 55 60

Leu Arg Asp Pro Gly Ser Leu Ser Gln Thr Ser Lys Leu Ser Arg Glu

65 70 75 80

Cys Val Cys Leu Ser Ser Asn Leu Asn Thr Leu Gly Cys Ser Val Arg

85 90 95

Cys Arg Ser Glu Thr Ala Val Glu Thr Arg Phe Pro Ala Leu Gly Trp

100 105 110

Gly Pro His Lys Ala Ser Ser Ile Ser Pro Trp Pro Ser Phe Leu Ile

115 120 125

Cys Arg Thr Gly Ser Leu Glu Asn Leu Gly Gly

130 135

&lt;210&gt; 3973

&lt;211&gt; 241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3973

Met Tyr Ile Tyr Leu Leu Pro Val Arg Phe Glu Arg Ile Phe Phe Phe

1	5	10	15
Phe Phe Phe	Leu Arg Arg Thr	Leu Thr Leu Ser Pro	Arg Leu Glu Cys
20	25	30	
Ser Gly Thr	Ile Ser Asp His Cys	Asn Leu Cys Leu Pro	Gly Ser Ser
35	40	45	
Asp Ser Pro	Thr Ser Ala Ser His	Val Ala Gly Ile Thr	Gly Ile Arg
50	55	60	
His His Ala	Arg Leu Lys Phe Phe	Cys Ile Phe Ser Arg	Asp Gly Ala
65	70	75	80
Leu Pro Val	Gly Gln Ala Gly Leu	Glu Leu Leu Thr Ser	Gly Asp Leu
85	90	95	
Pro Ala Leu	Ala Ser Gln Ser Ala	Val Ile Arg Gly Met	Ser His Arg
100	105	110	
Thr Leu Pro	Lys Gly Tyr Ile Arg	Pro Tyr Lys Tyr Phe	Asp Ser Leu
115	120	125	
Phe Phe Phe	Phe Phe Leu Glu Thr	Glu Phe Cys Ser Cys	Cys Pro
130	135	140	
Gly Trp Ser	Ala Val Gly Gln Ser	Gln Leu Thr Ala Thr	Ser Ala Ser
145	150	155	160
Trp Val Gln	Ala Val Leu Leu Pro	Gln Ser Pro Glu Trp	Leu Gly Leu
165	170	175	
Gln Ala His	Ala Arg Leu Ile Phe	Val Phe Leu Val Glu	Met Gly Phe
180	185	190	
His Arg Val	Gly Gln Ala Asp Leu	Lys Leu Leu Thr Ser	Ala His Leu
195	200	205	
Ser Leu Pro	Lys Cys Trp Asp Tyr	Arg Arg Glu Pro Pro	Arg Pro Ala
210	215	220	
Lys Tyr Phe	Tyr Tyr Thr Met His	Ile Val Glu Tyr Met	Leu Leu Val
225	230	235	240

出証特 2 0 0 4 - 3 0 5 9 6 6 0

&lt;210&gt; 3975

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3975

Met Trp Ala Ser Pro Ala Pro Thr Leu Ile Asp Ser Gly Asp Ser Val

1 5 10 15

Val Ala Lys Tyr Ile Asn Arg Phe Arg Gln Ala Gln Pro Thr Ser Arg

20 25 30

Glu Glu Arg Gln Pro Ala Gly Pro Thr Pro Ala Asp Phe Trp Trp Leu

35 40 45

Gln Ser Asp Ser Pro Gly Pro Ser Ser Gln Ser Ala Ala Ala Gly Ala

50 55 60

Asn Lys Pro Glu Gly Arg Pro His Thr Ala Val Pro Thr Ala Val Asn

65 70 75 80

Val Thr Ser Ala Ser His Ala Val Ala Pro Leu Gln Glu Ile Lys Gln

85 90 95

Val Thr Ser Pro Phe Thr Pro Ser Leu Gly Cys Leu Asn

100 105

&lt;210&gt; 3976

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3976

Met Gln Ser Pro Cys Pro Val Ser Pro Glu Thr Gly Gly Pro Cys Phe  
 1 5 10 15  
 Pro Val Glu Leu Thr Ala Asp Gly Arg Ala Thr Val Val Trp Val Trp  
 20 25 30  
 Pro Gly Val Ile Gln Glu Gly His Leu Gly Ala Ser His Gly Gln Met  
 35 40 45  
 Phe Ser Gly Pro Pro Gly Gly Val Thr Leu Ala Ser Pro Trp Ser Arg  
 50 55 60  
 Gln Leu Thr Ala Pro Ala Pro Pro Ser Pro Pro Pro Cys Leu Pro Cys  
 65 70 75 80  
 His Pro Trp Gly Gln Val Ser Ser Met Thr Phe Pro Ala Pro Ser Leu  
 85 90 95  
 Tyr Leu Val Thr Val Asn Pro Arg Arg Lys Arg Arg Tyr His Leu Leu  
 100 105 110  
 Gln Lys Ala Lys Asn Gln Val Arg Phe Gln Val Val Gly His Leu Gly  
 115 120 125  
 Gly Ser Pro Arg Pro Thr Leu Ala Gly Phe Leu Arg Gly Phe Gln Ser  
 130 135 140  
 Thr Trp Arg  
 145

&lt;210&gt; 3977

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3977

Met Ala Trp Gly Ser Val Gly Val Gly Pro Leu Val Val Trp Val Cys

1	5	10	15
Ala Gly Val Gly Trp Cys Gly Cys Arg Arg Leu Gly Gly Cys Val Arg			
20	25	30	
Val Leu Gly Ile His Val Val Trp Gly Cys Val Asp Val Tyr Thr Gly			
35	40	45	
Val Ser Ala Gly Val Asp Gly Val Cys Ala Gly Val Ala Cys Leu Val			
50	55	60	
Trp Val Val Gly Val Arg Ala Gly Met Cys Val Val Cys Arg Arg Val			
65	70	75	80
Gly Ser Cys Gly Gly Val Gln Val Cys Val Leu Gly Ile Asp Val Ala			
85	90	95	
Trp Val Ala Gly Cys Val Gln Val Leu Gly Val Cys Arg			
100	105		

&lt;210&gt; 3978

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3978

Met Ser Ser Phe Leu Gly Gly Gly Glu Asp Arg Val Leu Leu Cys Arg			
1	5	10	15
Ala Gly Trp Ser Ala Val Val Arg Ser Arg Leu Thr Ala Leu Ser Ala			
20	25	30	
Ser Trp Val Arg Glu Ile Leu Leu Pro Gln Pro Pro Glu Trp Leu Gly			
35	40	45	
Leu Gln Val Arg Ala Thr Thr Leu Ser Ser Phe Phe Leu Cys Ala Phe			
50	55	60	

Cys Val Val Ala Gly Phe Ser Gln Cys Cys Pro Gly Trp Cys His Thr  
 65                      70                      75                      80  
 Pro Gly Leu Lys Gln Ser Ser Arg Leu Gly Leu Pro Lys Cys Trp Asp  
                     85                      90                      95  
 Tyr Arg Arg Glu Pro Arg  
                     100

<210> 3979

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3979

Met Arg Val Leu His Val Gly Ala Phe Asn Trp Glu Glu Phe Leu Leu  
 1                      5                      10                      15  
 Ala Cys Asp Gly Phe Ser Asn Gly Ala Glu Ile Pro Lys Tyr Lys Pro  
                     20                      25                      30  
 Ala Asn Arg Ala Leu Lys Phe His Gly Val Ser Phe Pro Ala Ala Cys  
                     35                      40                      45  
 Ser Gly Pro Val Arg Cys Cys Gly Met Phe Thr Ile Glu Pro Gly Ser  
                     50                      55                      60  
 Val Pro Leu Gly Arg Ala Ala Ala Leu Val Glu Arg Val Arg Ser Gly  
 65                      70                      75                      80  
 Pro Pro Pro Arg Gly Gln Pro Gly Leu Ser Gly Gly Gln Lys Pro Leu  
                     85                      90                      95  
 Met Glu Asp Phe Ser Ser Leu Val Ser Gln Ala Gly Cys Ile Phe Val  
                     100                      105                      110  
 Arg Leu Ser



115

&lt;210&gt; 3980

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3980

Met Met Cys Phe Ile Ser Val Phe Asp Val Phe Ser Phe Phe Ser Pro

1 5 10 15

Gly Phe Thr Ser Phe Ala Ile Ser Leu Cys Phe Gly Phe Ala Ala Asn

20 25 30

Leu Ile Gly Leu Gly Leu Ala Ala Lys Ala Leu Asp Ser Gly Ala Phe

35 40 45

Phe Ser Phe Val Val Leu Ser Pro Ser Phe Pro Leu Pro Ser Cys Pro

50 55 60

His His Phe Thr Leu Leu Lys Val Ile Met Asn Thr Arg Ser Glu Ile

65 70 75 80

Pro Phe Leu Ala Pro Ser Thr Leu Gly Phe Phe Glu Met Glu Ser His

85 90 95

Cys Val Thr Gln Ala Val Ala Arg Leu Cys Ala Leu Gln Pro Pro Ser

100 105 110

Pro Trp Leu Lys Gln Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp

115 120 125

Tyr Arg Cys Lys Pro Arg His Leu Ala Asn Phe Ser Val Phe Ser Arg

130 135 140

Asp Gly Val Ser Pro Cys

145 150

&lt;210&gt; 3981

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3981

Met Arg Asn Met Ile Pro Gln Asp Asn Glu Asn Pro Pro Gln Gln Gly

1 5 10 15

Glu Ala Asn Gln Asn Asp Phe Ala Leu Val Ala Gln Ala Gly Val Gln

20 25 30

Trp Leu Asp Leu Gly Pro Gln Leu Pro Leu Leu Pro Gly Phe Lys Arg

35 40 45

Phe Phe Cys Leu Ser Leu Leu Ser Ser Cys Gly Tyr Ser Trp Ser Leu

50 55 60

Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Ala Ile Ser Ala Tyr Gly

65 70 75 80

Lys Leu Arg Leu Pro Gly Ser Cys His Ser Pro Ala Ser Ala Ser Arg

85 90 95

Val Ala Arg Thr Thr Gly Ala Arg His His Thr Arg Leu Ile Phe Val

100 105 110

Phe Leu Val Glu Thr Arg Phe His Arg Val Ser Gln Asp Gly Leu Asp

115 120 125

Leu Leu Thr Ser

130

&lt;210&gt; 3982

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3982

Met Arg Asn Gln Ala Pro Gly Arg Pro Lys Gly Ala Thr Phe Pro Pro

1 5 10 15

Arg Arg Pro Thr Gly Ser Arg Ala Pro Pro Leu Ala Pro Glu Leu Arg

20 25 30

Ala Lys Gln Arg Pro Gly Glu Arg Val Met Ala Leu Pro Val Thr Ala

35 40 45

Leu Leu Leu Pro Leu Ala Leu Leu Leu His Ala Ala Arg Pro Ser Gln

50 55 60

Phe Arg Val Ser Pro Leu Asp Arg Thr Trp Asn Leu Gly Glu Thr Val

65 70 75 80

Glu Leu Lys Cys Gln Val Leu Leu Ser Asn Pro Thr Ser Gly Cys Ser

85 90 95

Trp Leu Phe Gln Pro Arg Gly Ala Ala Ala Ser Pro Thr Phe Leu Leu

100 105 110

Tyr Leu Ser Gln Asn Lys Pro Lys Ala Ala Glu Gly Leu Asp Thr Gln

115 120 125

Arg Phe Ser Gly Lys Arg Leu Gly Asp Thr Phe Val Leu Thr Leu Ser

130 135 140

Asp Phe Arg Arg Glu Asn Glu Gly

145 150

&lt;210&gt; 3983

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3983

Met Gly Phe Pro Gln Arg Arg Leu Gly Lys Ser Val Gly Val Thr Ala

1 5 10 15

Gly Gly Leu Leu Leu Gly Leu Gln Glu Arg Gln Asn His Arg Pro Leu

20 25 30

Cys Gly Phe Gln Ala Gly Leu Gly Phe Pro Gly Gly Leu Gly Phe Cys

35 40 45

Ala Leu His Asp Cys Leu Ala Gln Asp Leu Ser His Leu Gln Gln Glu

50 55 60

Glu Ala Gly Thr Leu Gly Arg Ala Gly Cys Cys Leu Val Leu Lys Pro

65 70 75 80

Leu Ala Ala Cys Pro Ser Ser Ser Arg Ser Ala Val Pro Gly Gly Ala

85 90 95

Gly Ser Leu Arg Arg Ala Gly Pro Gly Leu Ser Tyr Pro Leu Arg Ala

100 105 110

Trp His Cys Pro Gly Arg Gly Ala Phe Val Gln Tyr Tyr Ser Asn Asp

115 120 125

Arg Thr

130

&lt;210&gt; 3984

&lt;211&gt; 270

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3984

Met	Ser	Ser	Arg	Lys	Gln	Gly	Ser	Gln	Pro	Arg	Gly	Gln	Gln	Ser	Ala
1				5					10					15	
Glu	Glu	Glu	Asn	Phe	Lys	Lys	Pro	Thr	Arg	Ser	Asn	Met	Gln	Lys	Asn
			20					25					30		
Leu	Glu	Pro	Ala	Leu	Pro	Gly	Arg	Trp	Gly	Gly	Arg	Ser	Ala	Glu	Asn
			35				40					45			
Pro	Pro	Ser	Gly	Ser	Val	Arg	Lys	Thr	Arg	Lys	Asn	Lys	Gln	Lys	Thr
	50					55					60				
Pro	Gly	Asn	Gly	Asp	Gly	Gly	Ser	Thr	Ser	Glu	Ala	Pro	Gln	Pro	Pro
65				70					75				80		
Arg	Lys	Lys	Arg	Ala	Arg	Ala	Asp	Pro	Thr	Val	Glu	Ser	Glu	Glu	Ala
			85					90					95		
Phe	Lys	Asn	Arg	Met	Glu	Val	Lys	Val	Lys	Ile	Pro	Glu	Glu	Leu	Lys
	100							105				110			
Pro	Trp	Leu	Val	Glu	Asp	Trp	Asp	Leu	Val	Thr	Arg	Gln	Lys	Gln	Leu
	115					120						125			
Phe	Gln	Leu	Pro	Ala	Lys	Lys	Asn	Val	Asp	Ala	Ile	Leu	Glu	Glu	Tyr
	130					135					140				
Ala	Asn	Cys	Lys	Lys	Ser	Gln	Gly	Asn	Val	Asp	Asn	Lys	Glu	Tyr	Ala
145				150					155				160		
Val	Asn	Glu	Val	Val	Ala	Gly	Ile	Lys	Glu	Tyr	Phe	Asn	Val	Met	Leu
			165					170					175		
Gly	Thr	Gln	Leu	Leu	Tyr	Lys	Phe	Glu	Arg	Pro	Gln	Tyr	Ala	Glu	Ile
	180						185					190			
Leu	Leu	Ala	His	Pro	Asp	Ala	Pro	Met	Ser	Gln	Val	Tyr	Gly	Ala	Pro
	195					200					205				
His	Leu	Leu	Arg	Leu	Phe	Val	Arg	Ile	Gly	Ala	Met	Leu	Ala	Tyr	Thr
	210					215					220				

Pro Leu Asp Glu Lys Ser Leu Ala Leu Leu Leu Gly Tyr Leu His Asp  
 225                                  230                                  235                                  240  
 Phe Leu Lys Tyr Leu Ala Lys Asn Ser Ala Ser Leu Phe Thr Ala Ser  
    245                                  250                                  255  
 Asp Tyr Lys Val Ala Ser Ala Glu Tyr His Arg Lys Ala Leu  
    260                                  265                                  270

<210> 3985

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3985

Met Arg His Leu Val His Met Ala Ser Phe Ser Ala Gln Thr Asn Met  
   1                                  5                                  10                                  15  
 His Ala Arg Asn Leu Ala Ile Val Trp Ala Pro Asn Leu Leu Arg Ser  
    20                                  25                                  30  
 Lys Asp Ile Glu Ala Ser Gly Phe Asn Gly Thr Ala Ala Phe Met Glu  
    35                                  40                                  45  
 Val Arg Val Gln Ser Ile Val Val Glu Phe Ile Leu Thr His Val Asp  
    50                                  55                                  60  
 Gln Leu Phe Gly Gly Ala Ala Leu Ser Gly Gly Glu Val Glu Ser Gly  
   65                                  70                                  75                                  80  
 Trp Arg Ser Leu Pro Gly Thr Arg Ala Ser Gly Ser Pro Glu Asp Leu  
    85                                  90                                  95  
 Met Pro Arg Pro Leu Pro Tyr His Leu Pro Ser Ile Leu Gln Ala Gly  
    100                                  105                                  110  
 Asp Gly Pro Pro Gln Met Arg Pro Tyr His Thr Ile Ile Glu Ile Ala

115	120	125
Glu His Lys Arg Lys Gly Ser Leu Lys Val Arg Lys Trp Arg Ser Ile		
130	135	140
Phe Asn Leu Gly Arg Ser Gly His Glu Thr Lys Arg Lys Leu Pro Arg		
145	150	155
Gly Ala Glu Asp Arg Glu Asp Lys Ser Asn Lys Gly Thr Leu Arg Pro		
165	170	175
Ala Lys Ser Met Gly Ser Leu Ser Ala Ala Ala Gly Ala Ser Asp Glu		
180	185	190
Pro Glu Gly Leu Val Gly Pro Ser Ser Pro Arg Pro Ser Pro Leu Leu		
195	200	205
Pro Glu Ser Leu Glu Asn Asp Ser Ile Glu Ala Ala Glu Gly Glu Gln		
210	215	220
Glu Pro Glu Ala Glu Ala Leu Gly Gly Thr Asn Ser Glu Pro Gly Thr		
225	230	235
Pro Arg Ala Gly Arg Ser Ala Ile Arg Ala Gly Gly Ser Ser Arg Ala		
245	250	255
Glu Arg Cys Ala Gly Val His Ile Ser Asp Pro Tyr Asn Val Asn Leu		
260	265	270
Pro Leu His Ile Thr Ser Ile Leu Ser Val Pro Pro Asn Ile Ile Ser		
275	280	285
Asn Val Ser Leu Ala Arg Leu Thr Arg Gly Leu Glu Cys Pro Ala Leu		
290	295	300
Gln His Arg Pro Ser Pro Ala Ser Gly Pro Gly Pro Gly Pro Gly Leu		
305	310	315
Gly Pro Gly Pro Pro Asp Glu Lys Leu Glu Ala Ser Pro Ala Ser Ser		
325	330	335
Pro Leu Ala Asp Ser Gly Pro Asp Asp Leu Ala Pro Ala Leu Glu Asp		
340	345	350

Ser Leu Ser Gln Glu Val Gln Asp Ser Phe Ser Phe Leu Glu Asp Ser  
355 360 365  
Ser Ser Ser Glu Pro Glu Trp Val Gly Ala Glu Asp Gly Glu Val Ala  
370 375 380  
Gln Ala Glu Ala Ala Gly Ala Ala Phe Ser Pro Gly Glu Asp Asp Pro  
385 390 395 400  
Gly Met Gly Tyr Leu Glu Glu Leu Leu Gly Val Gly Pro Gln Val Glu  
405 410 415  
Glu Phe Ser Val Glu Pro Pro Leu Asp Asp Leu Ser Leu Asp Glu Ala  
420 425 430  
Gln Phe Val Leu Ala Pro Ser Cys Cys Ser Val Asp Ser Ala Gly Pro  
435 440 445  
Arg Pro Glu Val Glu Glu Glu Asn Gly Glu Glu Val Phe Leu Ser Ala  
450 455 460  
Tyr Asp Asp Leu Ser Pro Leu Leu Gly Leu Leu Leu Gln Pro Gly Trp  
465 470 475 480  
Gly His Arg Ser His Ser Ser Glu Gly Gln Cys Leu Arg Ile Lys Ala  
485 490 495  
Val Phe Leu

&lt;210&gt; 3986

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3986

Met Lys Met Glu Glu Met Ser Leu Ser Gly Leu Asp Asn Ser Lys Leu



1	5	10	15
Glu Ala Ile Ala Gln Glu Ile Tyr Ala Asp Leu Val Glu Asp Ser Cys			
20	25	30	
Leu Gly Phe Cys Phe Glu Val His Arg Ala Val Lys Cys Gly Tyr Phe			
35	40	45	
Phe Leu Asp Asp Thr Asp Pro Asp Ser Met Lys Asp Phe Glu Ile Val			
50	55	60	
Asp Gln Pro Gly Leu Asp Ile Phe Gly Gln Ile Phe Asn Gln Trp Lys			
65	70	75	80
Ser Lys Glu Cys Val Cys Pro Asn Cys Ser Arg Ser Ile Ala Ala Ser			
85	90	95	
Arg Phe Ala Pro His Leu Glu Lys Cys Leu Gly Met Gly Arg Asn Ser			
100	105	110	
Ser Arg Ile Ala Asn Arg Arg Ile Ala Asn Ser Asn Asn Met Asn Lys			
115	120	125	
Ser Glu Ser Asp Gln Glu Asp Asn Asp Asp Ile Asn Asp Asn Asp Trp			
130	135	140	
Ser Tyr Gly Ser Glu Lys Lys Ala Lys Lys Arg Lys Ser Asp Lys Asn			
145	150	155	160
Pro Asn Ser Pro Arg Arg Ser Lys Ser Leu Lys His Lys Asn Gly Glu			
165	170	175	
Leu Ser Asn Ser Asp Pro Phe Lys Tyr Asn Asn Ser Thr Gly Ile Ser			
180	185	190	
Tyr Glu Thr Leu Gly Pro Glu Glu Leu Arg Ser Leu Leu Thr Thr Gln			
195	200	205	
Cys Gly Val Ile Ser Glu His Thr Lys Lys Met Cys Thr Arg Ser Leu			
210	215	220	
Arg Cys Pro Gln His Thr Asp Gly Gln Arg Arg Thr Val Arg Ile Tyr			
225	230	235	240

Phe Leu Gly Pro Ser Ala Val Leu Pro Glu Val Glu Ser Ser Leu Asp

245

250

255

Asn Asp Ser Phe Asp Met Thr Asp Ser Gln Ala Leu Ile Ser Arg Leu

260

265

270

Gln Trp Asp Gly Ser Ser Asp Leu Ser Pro Ser Asp Ser Gly Ser Ser

275

280

285

Lys Thr Ser Glu Asn Gln Gly Trp Gly Leu Gly Thr Asn Ser Ser Glu

290

295

300

Ser Arg Lys Thr

305

<210> 3987

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3987

Met Ala Lys Lys Ile Val Leu Ala Phe Ala Asp Gln Cys Asn Asn Gln

1

5

10

15

Leu Ala Asn Ala Ala Val Ser Ser Asp Ser Tyr Val Leu Cys Asn Ile

20

25

30

Leu Arg Thr Gln Phe Phe Phe Phe Leu Phe Val Cys Leu Phe Phe Glu

35

40

45

Ala Glu Ser Arg Ser Val Thr Gln Val Gly Val Gln Trp Arg His Leu

50

55

60

Gly Ser Leu Tyr Ala Pro Pro Pro Arg Phe Thr Pro Phe Ser Cys Leu

65

70

75

80

Ser Leu Pro Ser Ser Trp Asp Cys Arg Cys Leu Pro Pro Cys Pro Ala

	85		90		95
Asp Phe Phe Cys Ile Phe Ser Gly Asp Gly Ile Ser Pro Cys Trp Pro					
100		105		110	
Gly Trp Ser Arg Ser Pro Asp Leu Met Ser His His Thr Arg Pro Gly					
115		120		125	
Thr Gln Phe Leu Ile Arg Leu Val Leu Phe Leu Ile Phe Ser Gln Val					
130		135		140	
Trp Leu Ile Leu Val Leu Phe Phe Phe					
145		150			

&lt;210&gt; 3988

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3988

Met Ser His Arg Ala Arg Leu Leu Leu Phe Phe Leu Arg Cys Ser Leu			
1	5	10	15
Thr Leu Leu Pro Arg Leu Glu Cys Ser Gly Val Ile Ser Ala His Cys			
20	25	30	
Ser Arg Ser Leu Leu Gly Ser Asn Asp Ser Pro Ala Ser Ala Ser Gln			
35	40	45	
Val Ala Gly Ile Thr Gly Ala Cys His His Ala Gln Leu Ile Phe Val			
50	55	60	
Phe Leu Val Glu Met Gly Phe His His Val Gly Gln Ala Gly Leu Glu			
65	70	75	80
Leu Leu Thr Ser Gly Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly			
85	90	95	

Ile Thr Gly Val Ser Asn Leu Ala Arg Pro Gly Ala Val Thr Phe Lys

100

105

110

Ala Arg Arg Pro Glu Arg Arg Leu Val Gln Arg Ser Gln Gly Ser Glu

115

120

125

Gly Leu Arg Pro Gly Arg Gln Glu Pro Gly Asp Met Asp Ile Cys Glu

130

135

140

Gly Glu

145

<210> 3989

<211> 609

<212> PRT

<213> Homo sapiens

<400> 3989

Met Glu Ala Glu Phe Tyr Met Val Ile Leu Thr Cys Leu Ile Phe Arg

1

5

10

15

Asn Ser Glu Gly Phe Gln Ile Val His Val Gln Lys Gln Gln Cys Leu

20

25

30

Phe Lys Asn Glu Lys Val Val Val Gly Ser Cys Asn Arg Thr Ile Gln

35

40

45

Asn Gln Gln Trp Met Trp Thr Glu Asp Glu Lys Leu Leu His Val Lys

50

55

60

Ser Ala Leu Cys Leu Ala Ile Ser Asn Ser Ser Arg Gly Pro Ser Arg

65

70

75

80

Ser Ala Ile Leu Asp Arg Cys Ser Gln Ala Pro Arg Trp Thr Cys Tyr

85

90

95

Asp Gln Glu Gly Phe Leu Glu Val Glu Asn Ala Ser Leu Phe Leu Gln

100	105	110
Lys Gln Gly Ser Arg Val Val Val	Lys Lys Ala Arg Lys Tyr Leu His	
115	120	125
Ser Trp Met Lys Ile Asp Val Asn Lys Glu Gly Lys Leu Val Asn Glu		
130	135	140
Ser Leu Cys Leu Gln Lys Ala Gly Leu Gly Ala Glu Val Ser Val Arg		
145	150	155
Ser Thr Arg Asn Thr Ala Pro Pro Gln Ile Leu Thr Thr Phe Asn Ala		
165	170	175
Val Pro Asp Gly Leu Val Phe Leu Ile Arg Asn Thr Thr Glu Ala Phe		
180	185	190
Ile Arg Asn Ala Ala Glu Asn Tyr Ser Gln Asn Ser Ser Glu Arg Gln		
195	200	205
His Pro Asn Leu His Met Thr Gly Ile Thr Asp Thr Ser Trp Val Leu		
210	215	220
Ser Thr Thr Gln Pro Phe Ser Ser Thr Thr Glu Glu Thr Gly Leu Ala		
225	230	235
Glu Pro Glu Arg Cys Asn Phe Thr Leu Ala Glu Ser Lys Ala Ser Ser		
245	250	255
His Ser Val Ser Ile Gln Trp Arg Ile Leu Gly Ser Pro Cys Asn Phe		
260	265	270
Ser Leu Ile Tyr Ser Ser Asp Thr Leu Gly Ala Ala Leu Cys Pro Thr		
275	280	285
Phe Arg Ile Asp Asn Thr Thr Tyr Gly Cys Asn Leu Gln Asp Leu Gln		
290	295	300
Ala Gly Thr Ile Tyr Asn Phe Arg Ile Ile Ser Leu Asp Glu Glu Arg		
305	310	315
Thr Val Val Leu Gln Thr Asp Pro Leu Pro Pro Ala Arg Phe Gly Val		
325	330	335

Ser Lys Glu Lys Thr Thr Ser Thr Ser Leu His Val Trp Trp Thr Pro

340

345

350

Ser Ser Gly Lys Val Thr Ser Tyr Glu Val Gln Leu Phe Asp Glu Asn

355

360

365

Asn Gln Lys Ile Gln Gly Val Gln Ile Gln Glu Ser Thr Ser Trp Asn

370

375

380

Glu Tyr Thr Phe Phe Asn Leu Thr Ala Gly Ser Lys Tyr Asn Ile Ala

385

390

395

400

Ile Thr Ala Val Ser Gly Gly Lys Arg Ser Phe Ser Val Tyr Thr Asn

405

410

415

Gly Ser Thr Val Pro Ser Pro Val Lys Asp Ile Gly Ile Ser Thr Lys

420

425

430

Ala Asn Ser Leu Leu Ile Ser Trp Ser His Gly Ser Gly Asn Val Glu

435

440

445

Arg Tyr Arg Leu Val Leu Met Asp Lys Gly Ile Leu Val His Gly Gly

450

455

460

Val Val Asp Lys His Ala Thr Ser Tyr Ala Phe His Gly Leu Thr Pro

465

470

475

480

Gly Tyr Leu Tyr Asn Leu Thr Val Met Thr Glu Ala Ala Gly Leu Gln

485

490

495

Asn Tyr Arg Trp Lys Leu Val Arg Thr Ala Pro Met Glu Val Ser Asn

500

505

510

Leu Lys Val Thr Asn Asp Gly Ser Leu Thr Ser Leu Lys Val Lys Trp

515

520

525

Gln Arg Pro Pro Gly Asn Val Asp Ser Tyr Asn Ile Thr Leu Ser His

530

535

540

Lys Gly Thr Ile Lys Glu Ser Arg Val Leu Ala Pro Trp Ile Thr Glu

545

550

555

560

Thr His Phe Lys Glu Leu Val Pro Gly Arg Leu Tyr Gln Val Thr Val

565 570 575  
 Ser Cys Val Ser Gly Glu Leu Ser Ala Gln Lys Met Ala Val Gly Arg  
 580 585 590  
 Thr Cys Glu Ser Trp Ala Pro Glu Cys Ser Leu Val Ala Gln Ile Thr  
 595 600 605  
 Leu

<210> 3990

<211> 175

<212> PRT

<213> Homo sapiens

<400> 3990

Met Trp Trp His Leu Cys Thr His Ser Ala Val His Pro Pro Thr Pro  
 1 5 10 15  
 Ser Ser Phe Lys Arg His Ser Ser Pro Gln Lys Lys Pro Pro Val Leu  
 20 25 30  
 Ile Lys Gln Leu Pro Leu Leu Gly Ile Pro Gln Ala Pro Leu Leu Gly  
 35 40 45  
 Ser Glu Glu Gly Leu Ala Ser Glu Arg Ser Ser Asp Asn Lys Glu Ser  
 50 55 60  
 Gly Thr His Cys Trp Ser Arg Pro Gly Leu Val Phe His Pro Ala Glu  
 65 70 75 80  
 Val Ala Glu Pro Gly Gly Ser Gly Ser Ala Thr Gly Glu Pro His Ala  
 85 90 95  
 Cys Arg Arg Ser Pro Ala Pro Pro Arg Ala Ser Pro Pro Gly Gly Ser  
 100 105 110

Arg Glu Leu Ser Arg Thr Arg Arg Gly Ala Gly Gly Lys Gln Trp Leu  
 115 120 125  
 Arg Ala Ala Asp Lys Pro His Val Asp Pro Arg Pro Leu Ser Leu Trp  
 130 135 140  
 Val Gly Leu Gly Asn Trp Arg Gly Gly Arg Met Ile Gly Asn Met Lys  
 145 150 155 160  
 Thr Ala Arg Pro Gly Trp Ser Ser Gly Lys Arg Arg His Gly His  
 165 170 175

<210> 3991

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3991

Met Tyr Leu Val Ala Leu Thr Gly Pro Ser Leu Tyr Asn Pro Phe Leu  
 1 5 10 15  
 Thr Ser Ser Lys Pro Pro Ser Ser Leu Pro Leu Lys Phe Leu Phe Phe  
 20 25 30  
 Phe Asn Pro Leu Gly Leu Leu Ile Tyr His Ile Pro Gln Val Glu Pro  
 35 40 45  
 Arg Asp Leu Asp Phe Ser Thr Ser His Gly Ala Val Ser Ala Thr Pro  
 50 55 60  
 Pro Ala Pro Thr Leu Val Ser Gly Asp Pro Trp Tyr Pro Trp Tyr Asn  
 65 70 75 80  
 Trp Lys Gln Pro Pro Glu Arg Glu Leu Ser Arg Leu Arg Arg Leu Tyr  
 85 90 95  
 Gln Gly His Leu Gln Glu Glu Ser Gly Pro Pro Pro Glu Ser Met Pro



100                      105                      110  
 Lys Met Pro Pro Arg Thr Pro Ala Glu Ala Ser Ser Thr Gly Gln Thr  
 115                      120                      125  
 Gly Pro Gln Ser Ala Leu  
 130

<210> 3992

<211> 173

<212> PRT

<213> Homo sapiens

<400> 3992

Met Leu Ile Asn Leu Phe Ser Val Phe Arg Thr Leu Ser Phe Val Ser  
 1                      5                      10                      15  
 Cys Ala Thr Gln Met Phe Phe Phe Leu Gly Phe Ala Val Thr Asn Cys  
 20                      25                      30  
 Leu Leu Leu Gly Val Met Gly Tyr Asp Arg Tyr Ala Ala Ile Cys Gln  
 35                      40                      45  
 Pro Leu Gln Tyr Ala Val Leu Met Ser Trp Arg Val Cys Gly Gln Leu  
 50                      55                      60  
 Ile Ala Thr Cys Ile Ile Ser Gly Phe Leu Ile Ser Leu Val Gly Thr  
 65                      70                      75                      80  
 Thr Phe Val Phe Ser Leu Pro Phe Cys Gly Ser Asn Lys Val Asn His  
 85                      90                      95  
 Tyr Phe Cys Asp Ile Ser Pro Val Ile Arg Leu Ala Cys Ala Asp Ser  
 100                      105                      110  
 Tyr Ile Gly Glu Leu Val Ile Phe Ile Phe Gly Val Leu Val Leu Val  
 115                      120                      125

Val Pro Leu Ile Phe Ile Cys Ile Ser Tyr Gly Phe Ile Val Arg Thr  
 130 135 140  
 Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Gln Lys Ala Phe Ser Thr  
 145 150 155 160  
 Cys Ala Ser His Leu Ile Val Val Ile Val His Tyr Gly  
 165 170

<210> 3993

<211> 324

<212> PRT

<213> Homo sapiens

<400> 3993

Met Asn His Met Ser Ala Ser Leu Lys Ile Ser Asn Ser Ser Lys Phe  
 1 5 10 15  
 Gln Val Ser Glu Phe Ile Leu Leu Gly Phe Pro Gly Ile His Ser Trp  
 20 25 30  
 Gln His Trp Leu Ser Leu Pro Leu Ala Leu Leu Tyr Leu Ser Ala Leu  
 35 40 45  
 Ala Ala Asn Thr Leu Ile Leu Ile Ile Ile Trp Gln Asn Pro Ser Leu  
 50 55 60  
 Gln Gln Pro Met Tyr Ile Phe Leu Gly Ile Leu Cys Met Val Asp Met  
 65 70 75 80  
 Gly Leu Ala Thr Thr Ile Ile Pro Lys Ile Leu Ala Ile Phe Trp Phe  
 85 90 95  
 Asp Ala Lys Val Ile Ser Leu Pro Glu Arg Phe Ala Gln Ile Tyr Ala  
 100 105 110  
 Ile His Phe Phe Val Gly Met Glu Ser Gly Ile Leu Leu Cys Met Ala

115 120 125  
Phe Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Pro Ser Ile  
130 135 140  
Val Thr Ser Ser Leu Ile Leu Lys Ala Thr Leu Phe Met Val Leu Arg  
145 150 155 160  
Asn Gly Leu Phe Val Thr Pro Val Pro Val Leu Ala Ala Gln Arg Asp  
165 170 175  
Tyr Cys Ser Lys Ser Glu Ile Glu His Cys Leu Cys Ser Asn Leu Gly  
180 185 190  
Val Thr Ser Leu Ala Cys Asp Asp Arg Arg Pro Asn Ser Ile Cys Gln  
195 200 205  
Leu Val Leu Ala Trp Leu Gly Met Gly Ser Asp Leu Ser Leu Ile Ile  
210 215 220  
Leu Ser Tyr Ile Leu Ile Leu Tyr Ser Val Leu Arg Leu Asn Ser Ala  
225 230 235 240  
Glu Ala Ala Ala Lys Ala Leu Ser Thr Cys Ser Ser His Leu Thr Leu  
245 250 255  
Ile Leu Phe Phe Tyr Thr Ile Val Val Val Ile Ser Val Thr His Leu  
260 265 270  
Thr Glu Met Lys Ala Thr Leu Ile Pro Val Leu Leu Asn Val Leu His  
275 280 285  
Asn Ile Ile Pro Pro Ser Leu Asn Pro Thr Val Tyr Ala Leu Gln Thr  
290 295 300  
Lys Glu Leu Arg Ala Ala Phe Gln Lys Val Leu Phe Ala Leu Thr Lys  
305 310 315 320  
Glu Ile Arg Ser

&lt;210&gt; 3994

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3994

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Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys Cys Val Asn Thr
  1             5             10             15
Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly Phe Tyr Tyr Asp Gly
             20             25             30
Asn Leu Leu Glu Cys Val Asp Val Asp Glu Cys Leu Asp Glu Ser Asn
             35             40             45
Cys Arg Asn Gly Val Cys Glu Asn Thr Arg Gly Gly Tyr Arg Cys Ala
             50             55             60
Cys Thr Pro Pro Ala Glu Tyr Ser Pro Ala Gln Arg Gln Cys Leu Ser
             65             70             75             80
Pro Glu Glu Met Asp Val Asp Glu Cys Gln Asp Pro Ala Ala Cys Arg
             85             90             95
Pro Gly Arg Cys Val Asn Leu Pro Gly Ser Tyr Arg Cys Glu Cys Arg
             100            105            110
Pro Pro Trp Val Pro Gly Pro Ser Gly Arg Asp Cys Gln Leu Pro Glu
             115            120            125
Ser Pro Ala Glu Arg Ala Pro Glu Arg Arg Asp Val Cys Trp Ser Gln
             130            135            140
Arg Gly Glu Asp Gly Met Cys Ala Gly Pro Leu Ala Gly Pro Ala Leu
             145            150            155            160
Thr Phe Asp Asp Cys Cys Cys Arg Gln Gly Arg Gly Trp Gly Ala Gln
             165            170            175
Cys Arg Pro Cys Pro Pro Arg Gly Ala Gly Ser His Cys Pro Thr Ser

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180 185 190  
 Gln Ser Glu Ser Asn Ser Phe Trp Asp Thr Ser Pro Leu Leu Leu Gly  
 195 200 205  
 Lys Pro Pro Arg Asp Glu Asp Ser Ser Glu Glu Asp Ser Asp Glu Cys  
 210 215 220  
 Arg Cys Val Ser Gly Arg Cys Val Pro Arg Pro Gly Gly Ala Val Cys  
 225 230 235 240  
 Glu Cys Pro Gly Gly Phe Gln Leu Asp Ala Ser Arg Ala Arg Cys Val  
 245 250 255  
 Asp Ile Asp Glu Cys Arg Glu Leu Asn Gln Arg Gly Pro Leu Cys Lys  
 260 265 270  
 Ser Glu Arg Cys Val Asn Thr Ser Gly Ser Phe Arg Cys Val Cys Lys  
 275 280 285  
 Ala Gly Phe Ala Arg Ser Arg Pro His Gly Ala Cys Val Pro Gln Arg  
 290 295 300  
 Arg Arg  
 305

<210> 3995

<211> 450

<212> PRT

<213> Homo sapiens

<400> 3995

Met Ile Leu Leu Val Asn Leu Phe Val Leu Leu Ser Val Val Cys Val  
 1 5 10 15  
 Leu Leu Asn Leu Ala Gly Phe Ile Leu Gly Cys Gln Gly Ala Gln Phe  
 20 25 30

Val Ser Ser Val Pro Arg Cys Asp Leu Val Asp Leu Gly Glu Gly Lys  
 35 40 45  
 Ile Cys Phe Cys Cys Glu Glu Phe Gln Pro Ala Lys Cys Thr Asp Lys  
 50 55 60  
 Glu Asn Ala Leu Lys Leu Phe Pro Val Gln Pro Cys Ser Ala Val His  
 65 70 75 80  
 Leu Leu Leu Lys Lys Val Leu Phe Ala Leu Cys Ala Leu Asn Ala Leu  
 85 90 95  
 Thr Thr Thr Val Cys Leu Val Ala Ala Ala Leu Arg Tyr Leu Gln Ile  
 100 105 110  
 Phe Ala Thr Arg Arg Ser Cys Ile Asp Glu Ser Gln Ile Ser Ala Glu  
 115 120 125  
 Glu Ala Glu Asp His Gly Arg Ile Pro Asp Pro Asp Asp Phe Val Pro  
 130 135 140  
 Pro Val Pro Pro Pro Ser Tyr Phe Ala Thr Phe Tyr Ser Cys Thr Pro  
 145 150 155 160  
 Arg Met Asn Arg Arg Met Val Gly Pro Asp Val Ile Pro Leu Pro His  
 165 170 175  
 Ile Tyr Gly Ala Arg Ile Lys Gly Val Glu Val Phe Cys Pro Leu Asp  
 180 185 190  
 Pro Pro Pro Pro Tyr Glu Ala Val Val Ser Gln Met Asp Gln Glu Gln  
 195 200 205  
 Gly Ser Ser Phe Gln Met Ser Glu Gly Ser Glu Ala Ala Val Ile Pro  
 210 215 220  
 Leu Asp Leu Gly Cys Thr Gln Val Thr Gln Asp Gly Asp Ile Pro Asn  
 225 230 235 240  
 Ile Pro Ala Glu Glu Asn Ala Ser Thr Ser Thr Pro Ser Ser Thr Leu  
 245 250 255  
 Val Arg Pro Ile Arg Ser Arg Arg Ala Leu Pro Pro Leu Arg Thr Arg

260 265 270  
Ser Lys Ser Asp Pro Val Leu His Pro Ser Glu Glu Arg Ala Ala Pro  
275 280 285  
Val Leu Ser Cys Glu Ala Ala Thr Gln Thr Glu Arg Arg Leu Asp Leu  
290 295 300  
Ala Ala Val Thr Leu Arg Arg Gly Leu Arg Ser Arg Ala Ser Arg Cys  
305 310 315 320  
Arg Pro Arg Ser Leu Ile Asp Tyr Lys Ser Tyr Met Asp Thr Lys Leu  
325 330 335  
Leu Val Ala Arg Phe Leu Glu Gln Ser Ser Cys Thr Met Thr Pro Asp  
340 345 350  
Ile His Glu Leu Val Glu Asn Ile Lys Ser Val Leu Lys Ser Asp Glu  
355 360 365  
Glu His Met Glu Glu Ala Ile Thr Ser Ala Ser Phe Leu Glu Gln Ile  
370 375 380  
Met Ala Pro Leu Gln Pro Ser Thr Ser Arg Ala His Arg Leu Pro Ser  
385 390 395 400  
Arg Arg Gln Pro Gly Leu Leu His Leu Gln Ser Cys Gly Asp Leu His  
405 410 415  
Thr Phe Thr Pro Ala Gly Arg Pro Arg Ala Glu Arg Arg Pro Arg Arg  
420 425 430  
Val Glu Ala Glu Arg Pro His Ser Leu Ile Gly Val Ile Arg Glu Thr  
435 440 445  
Val Leu  
450

&lt;210&gt; 3996

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3996

Met Phe Lys Cys Leu Ile Phe Phe Val Ile Met Ser Gly Ile Met Ile  
1 5 10 15  
Val Leu Leu Ala Glu Ser Gln Ala Arg Val Asp Thr His Ile Ser Asn  
20 25 30  
Ser Lys Ala Ser Ala Leu Phe Met Met Cys Gln Tyr Pro Pro Thr His  
35 40 45  
Pro Trp Ile Leu Pro Pro Pro Pro Leu Phe Tyr Arg Asn Ala Asn Thr  
50 55 60  
Val Ser Cys Val Asn Ala Arg Met Tyr Ser Leu Ser Leu Leu Glu Ala  
65 70 75 80  
Trp Val Arg Pro Leu Phe Gly Arg Met Glu Leu Pro Ser Phe Leu Leu  
85 90 95  
Val Ser Ser Leu Ser Pro Leu Leu Leu Gln Pro Cys His Gly Ser  
100 105 110

&lt;210&gt; 3997

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3997

Met Ser Thr Ser Ser Tyr Asn Leu Cys Gln Gln Lys Lys Arg Arg Ala  
1 5 10 15  
Leu Leu Arg Ala Ser Gly Val Lys Lys Ile Asp Val Glu Glu Lys His



20	25	30
Glu Leu Arg Ala Ile Arg Leu Ser Arg Glu Asp Cys Gly Cys Asp Cys		
35	40	45
Arg Val Phe Cys Asp Pro Asp Thr Cys Thr Cys Ser Leu Ala Gly Ile		
50	55	60
Lys Cys Gln Val Asp Arg Met Ser Phe Pro Cys Gly Cys Thr Lys Glu		
65	70	75
Gly Cys Ser Asn Thr Ala Gly Arg Ile Glu Phe Asn Pro Ile Arg Val		
85	90	95
Arg Thr His Phe Leu His Thr Ile Met Lys Leu Glu Leu Glu Lys Asn		
100	105	110
Arg Glu Gln Gln Ile Pro Thr Leu Asn Gly Cys His Ser Glu Ile Ser		
115	120	125
Ala His Ser Ser Ser Met Gly Pro Val Ala His Ser Val Glu Tyr Ser		
130	135	140
Ile Ala Asp Ser Phe Glu Ile Glu Thr Glu Pro Gln Ala Ala Val Leu		
145	150	155
His Leu Gln Ser Ala Glu Glu Leu Asp Cys Gln Gly Glu Glu Glu Glu		
165	170	175
Glu Glu Glu Asp Gly Ser Ser Phe Cys Ser Gly Val Thr Asp Ser Ser		
180	185	190
Thr Gln Ser Leu Ala Pro Ser Glu Ser Asp Glu Glu Glu Glu Glu Glu		
195	200	205
Glu Glu Glu Glu Glu Glu Glu Asp Asp Asp Asp Asp Lys Gly Asp Gly		
210	215	220
Phe Val Glu Gly Leu Gly Thr His Ala Glu Val Val Pro Leu Pro Ser		
225	230	235
Val Leu Cys Tyr Ser Asp Gly Thr Ala Val His Glu Ser His Ala Lys		
245	250	255

Asn Ala Ser Phe Tyr Ala Asn Ser Ser Thr Leu Tyr Tyr Gln Asn Asp  
                   260                                  265                                  270  
 Ser Gly Val Pro Cys Asn Ser Leu Tyr Pro Glu His Arg Ser Asn His  
                   275                                  280                                  285  
 Pro Gln Val Glu Phe His Ser Tyr Leu Lys Gly Pro Ser Gln Glu Gly  
                   290                                  295                                  300  
 Phe Val Ser Ala Leu Asn Gly Asp Ser His Ile Ser Glu His Pro Ala  
 305                                  310                                  315                                  320  
 Glu Asn Ser Leu Ser Leu Ala Glu Lys Ser Ile Leu His Glu Glu Cys  
                                   325                                  330                                  335  
 Ile Lys Ser Pro Val Val Glu Thr Val Pro Val  
                   340                                  345

<210> 3998

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3998

Met Gly Glu Arg Lys Gly Ile Cys Glu Gly Asp Trp Leu Ala Lys Pro  
   1                                  5                                  10                                  15  
 Lys Ile Phe Leu Met Trp Pro Tyr Ile Glu Lys Ala Cys Val Phe Trp  
                   20                                  25                                  30  
 Thr Arg Ala Ile Lys Gly Asn Ser Leu Asp Leu Lys Leu Leu Lys Ile  
                   35                                  40                                  45  
 Asn Ser Ala Gln Ile Ala Leu Gly Ser Gln Arg Pro Cys Trp Ser Ser  
                   50                                  55                                  60  
 Lys Gly Ser Val Gln Ser Val Val Ser Lys Asp Arg Ser Gln Leu Ser

65	70	75	80
Gln Glu Ser Glu Tyr Lys Tyr Ser Glu Pro Ile Asn Arg Gln Ile Ile			
	85	90	95
Ile Tyr Thr Met Ser Gln Pro Val Asp Gly Ile Ile Cys His His			
100	105	110	

&lt;210&gt; 3999

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3999

Met Arg Val Thr Ala Pro Arg Thr Leu Leu Leu Leu Leu Trp Gly Ala			
1	5	10	15
Val Ala Leu Thr Glu Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe			
20	25	30	
His Thr Ser Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Phe Ile Thr			
35	40	45	
Val Gly Tyr Val Asp Asp Thr Leu Phe Val Arg Phe Asp Ser Asp Ala			
50	55	60	
Thr Ser Pro Arg Lys Glu Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly			
65	70	75	80
Pro Glu Tyr Trp Asp Gln Glu Thr Gln Ile Ser Lys Thr Asn Thr Gln			
85	90	95	
Thr Tyr Arg Glu Ser Leu Arg Asn Leu Arg Gly Tyr Tyr Asn Pro Gly			
100	105	110	
Arg Arg Ser Arg Leu Pro Ile Pro His Val Arg Pro Gly Ser Pro Arg			
115	120	125	

Val Ser Gly Ser Glu Ile Arg Pro Arg Gly Arg Gly Thr Arg Pro Asp			
130	135	140	
Pro Arg Pro Ala Arg Ala Pro Gly Ala Phe Thr Arg Phe His Phe Gln			
145	150	155	160
Leu Arg Pro Lys Ser Pro Arg Val Gly Arg Gly Gly Ala Gly Leu Gly			
165	170	175	
Gly Thr Gly Leu Thr Ala Gly Ala Gly Pro Gly Ser His Thr Leu Gln			
180	185	190	
Ser Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly			
195	200	205	
His Asn Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu			
210	215	220	
Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln			
225	230	235	240
Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu			
245	250	255	
Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys			
260	265	270	
Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Thr His Val Thr His His			
275	280	285	
Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe			
290	295	300	
Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln			
305	310	315	320
Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr			
325	330	335	
Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg			
340	345	350	
Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu			

355                      360                      365  
 Arg Trp Glu Pro Ser Ser Gln Ser Thr Val Pro Ile Val Gly Ile Val  
 370                      375                      380  
 Ala Gly Leu Ala Val Leu Ala Val Val Val Ile Gly Ala Val Val Ala  
 385                      390                      395                      400  
 Ala Val Met Cys Arg Arg Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr  
 405                      410                      415  
 Ser Gln Ala Ala Cys Ser Asp Ser Ala Gln Gly Ser Asp Val Ser Leu  
 420                      425                      430  
 Thr Ala

<210> 4000

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4000

Met Lys Trp Val Glu Met Thr Ser His Trp Glu Lys Thr Met Ser Arg  
 1                      5                      10                      15  
 Arg Tyr Lys Lys Val Arg Gly Ala Gly Ala Pro Leu Gly Phe His Gly  
 20                      25                      30  
 Ser Phe Leu Ser Ala Ser Ala His Ile Leu Ala Lys Cys Thr His Pro  
 35                      40                      45  
 Val Ser Gln His Leu Arg Pro Leu Leu Pro Ala Thr Gln Ser Gly Pro  
 50                      55                      60  
 Leu Pro Ala Asp Glu Leu Cys Leu Gly Pro Ala Ser Arg Ser Tyr Gly  
 65                      70                      75                      80

Gly Cys Leu Val Glu Pro Leu Ala Ser Pro Thr Gly Lys Asp Ala Val  
                     85                    90                    95  
 Pro Glu Arg His Pro Val Cys Pro Ala Arg Pro Met Leu Ala Pro Val  
                     100                    105                    110  
 Val Trp Gly Pro Cys Val Pro Glu Glu Gln Pro Trp His Leu Ser Gly  
                     115                    120                    125  
 Glu Gly Val Gly Arg Gly Pro Asn Ser Pro Thr Gln Ser Pro Ser Pro  
                     130                    135                    140  
 His  
 145

<210> 4001

<211> 468

<212> PRT

<213> Homo sapiens

<400> 4001

Met Glu Leu Gly Leu Ser Trp Val Phe Leu Val Ala Ile Leu Glu Gly  
     1                    5                    10                    15  
 Val His Cys Glu Val Gln Leu Val Glu Ser Gly Gly Arg Leu Val Arg  
                     20                    25                    30  
 Pro Gly Gly Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Asp Phe  
                     35                    40                    45  
 Ser Tyr Tyr Trp Met Ala Trp Val Arg Gln Ala Pro Gly Lys Gly Leu  
                     50                    55                    60  
 Glu Trp Val Ala Asn Ile Arg Lys Asp Gly Ser Asp Lys Tyr Tyr Val  
                     65                    70                    75                    80  
 Asp Ser Val Lys Gly Arg Phe Ser Ile Ser Arg Asp Asn Ser Lys Asn

	85		90		95
Ser Leu Tyr Leu Gln Met Thr Ser Leu Arg Ala Asn Asp Thr Ala Val					
	100		105		110
Tyr Tyr Cys Ala Thr Val Pro Asp Leu Asp Ser Asp Ser Phe Leu Trp					
	115		120		125
Gly Arg Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro					
	130		135		140
Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr					
	145		150		155
					160
Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr					
	165		170		175
Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro					
	180		185		190
Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr					
	195		200		205
Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn					
	210		215		220
His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser					
	225		230		235
					240
Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu					
	245		250		255
Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu					
	260		265		270
Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser					
	275		280		285
His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu					
	290		295		300
Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr					
	305		310		315
					320

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn

325

330

335

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro

340

345

350

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln

355

360

365

Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val

370

375

380

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val

385

390

395

400

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro

405

410

415

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr

420

425

430

Val Gly Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val

435

440

445

Met His Glu Gly Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu

450

455

460

Ser Pro Gly Lys

465

<210> 4002

<211> 159

<212> PRT

<213> Homo sapiens

<400> 4002

Met Asp Met Gly Leu Lys Leu Gly His Pro Thr Leu Thr Gly Asn Trp



1 5 10 15  
Gln Ile Ser Asp Pro Asn Ala Leu Ser Pro Pro Ser Pro Leu Thr Pro  
20 25 30  
Gln Pro Ala Ile Thr Lys Arg Pro Lys Ala Cys Phe Phe His Gln Pro  
35 40 45  
Pro Ala Gln Phe Leu Phe Ser Thr Arg Lys Ala Gly Val Val Leu Thr  
50 55 60  
Pro Tyr Ile Pro Pro Ala Pro Arg Arg Ile Gly Phe Thr Val Gly Arg  
65 70 75 80  
Val Ala Ile Lys Pro Glu Pro Ser Gln Pro Thr Arg Ser Gln Arg Glu  
85 90 95  
Lys Ala Arg Gly Gly Arg Thr Ser Val Val Leu Ser Ile Asn Trp Leu  
100 105 110  
Trp Gly Gly Gly Met Gly Trp Ser Ser His Leu Ala Ser His Leu Val  
115 120 125  
Met Arg Thr Ser Lys Asn Leu Gln Gln Glu Arg Ser Phe His Ser Lys  
130 135 140  
Val Lys Gly Arg Gly Ala Ala Ala Leu Gly Leu Pro Gly Arg Asn  
145 150 155

&lt;210&gt; 4003

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4003

Met Ser Ala Pro Pro Ala Leu Gln Ile Arg Glu Ala Asn Ala His Leu  
1 5 10 15

Ala Ala Val His Arg Arg Ala Ala Glu Leu Glu Ala Arg Leu Asp Ala  
                     20                    25                    30  
 Ala Glu Arg Thr Val His Ala Gln Ala Glu Arg Leu Ala Leu His Asp  
                     35                    40                    45  
 Gln Gln Leu Arg Ala Ala Leu Asp Glu Leu Gly Arg Ala Lys Asp Arg  
                     50                    55                    60  
 Glu Ile Ala Thr Leu Gln Glu Gln Leu Met Thr Ser Glu Ala Thr Val  
                     65                    70                    75                    80  
 His Ser Leu Gln Ala Thr Val His Gln Arg Asp Glu Leu Ile Arg Gln  
                     85                    90                    95  
 Leu Gln Pro Arg Ala Glu Leu Leu Gln Asp Ile Cys Arg Arg Arg Pro  
                     100                    105                    110  
 Pro Leu Ala Gly Leu Leu Asp Ala Leu Ala Glu Ala Glu Arg Leu Gly  
                     115                    120                    125  
 Pro Leu Pro Ala Ser Asp Pro Gly His Pro Pro Pro Gly Gly Pro Gly  
                     130                    135                    140  
 Pro Pro Leu Asp Asn Ser Thr Gly Glu Glu Ala Asp Arg Asp His Leu  
                     145                    150                    155                    160  
 Gln Pro Ala Val Phe Gly Thr Thr Val  
                     165

&lt;210&gt; 4004

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4004

Met Met Ala Leu Trp Ser Leu Leu His Leu Thr Phe Leu Gly Phe Ser

1	5	10	15
Ile Thr Leu Leu Leu Val His Gly Gln Gly Phe Gln Gly Thr Ala Ala			
20	25	30	
Ile Trp Pro Ser Leu Phe Asn Val Asn Leu Ser Lys Lys Val Gln Glu			
35	40	45	
Ser Ile Gln Ile Pro Asn Asn Gly Ser Ala Pro Leu Leu Val Asp Val			
50	55	60	
Arg Val Phe Val Ser Asn Val Phe Asn Val Asp Ile Leu Arg Tyr Thr			
65	70	75	80
Met Ser Ser Met Leu Leu Leu Arg Leu Ser Trp Leu Asp Thr Arg Leu			
85	90	95	
Ala Trp Asn Thr Ser Ala His Pro Arg His Ala Ile Thr Leu Pro Trp			
100	105	110	
Glu Ser Leu Trp Thr Pro Arg Leu Thr Ile Leu Glu Ala Leu Trp Val			
115	120	125	
Asp Trp Arg Asp Gln Ser Pro Gln Ala Arg Val Asp Gln Asp Gly His			
130	135	140	
Val Lys Leu Asn Leu Ala Leu Thr Thr Glu Thr Asn Cys Asn Phe Glu			
145	150	155	160
Leu Leu His Phe Pro Arg Asp His Ser Asn Cys Ser Leu Ser Phe Tyr			
165	170	175	
Ala Leu Ser Asn Thr Gly Ala Asp Arg Ala Gly Ala Ala Gly Leu Arg			
180	185	190	
Arg Gly Gly Gly Arg Trp Gly Arg Gly Thr Pro Arg Ser Val Val Gln			
195	200	205	
Gly Gln Gly Ala Gly Gln Gly Glu Gly Ala Lys Ala Asp Arg Arg Arg			
210	215	220	
Thr Pro Arg Ser Val Phe Arg Ala Val Tyr Pro Arg Leu Arg Arg Ala			
225	230	235	240

Ala Pro Ala Leu Pro Leu Arg Pro Pro Leu Glu Trp Gln Pro Ile Ser  
245 250 255

Val Leu Ser Gly Ser Leu Arg Ala Pro Leu  
260 265

<210> 4005

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4005

Met Asp Trp Thr Trp Arg Phe Leu Phe Val Val Ala Ala Ala Thr Gly  
1 5 10 15

Val Gln Ser Gln Val Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys  
20 25 30

Pro Gly Ser Ser Val Lys Leu Ser Cys Lys Ala Pro Gly Val Thr Leu  
35 40 45

Thr Ser Tyr Ser Leu Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu  
50 55 60

Glu Trp Met Gly Arg Ile Val Pro Thr Val Gly Ile Ala Thr Ile Gly  
65 70 75 80

Gln Asn Phe Lys Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Arg  
85 90 95

Thr Ala Tyr Leu Glu Val Asn Ser Leu Gly Ser Glu Asp Thr Ala Thr  
100 105 110

Tyr Tyr Cys Ala Ser Gly Gln Asp Val Asp Phe Arg Arg Gly Val Ala  
115 120 125

Phe Glu Met Trp Gly Gln Gly Thr Met Val Ile Val Ser Ser Ala Ser

130 135 140  
Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr  
145 150 155 160  
Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro  
165 170 175  
Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val  
180 185 190  
His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser  
195 200 205  
Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Thr  
210 215 220  
Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val  
225 230 235 240  
Glu Leu Lys Thr Pro Leu Gly Asp Thr Thr His Thr Cys Pro Arg Cys  
245 250 255  
Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro  
260 265 270  
Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu  
275 280 285  
Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Ala Pro  
290 295 300  
Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys  
305 310 315 320  
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val  
325 330 335  
Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Lys Trp Tyr Val Asp  
340 345 350  
Gly Val Glu Val His Asn Ala Lys Thr Lys Leu Arg Glu Glu Gln Tyr  
355 360 365

Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp  
370 375 380  
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu  
385 390 395 400  
Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg  
405 410 415  
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys  
420 425 430  
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp  
435 440 445  
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Asn  
450 455 460  
Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser  
465 470 475 480  
Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Ile Phe Ser  
485 490 495  
Cys Ser Val Met His Glu Ala Leu His Asn Arg Tyr Thr Gln Lys Ser  
500 505 510  
Leu Ser Leu Ser Pro Gly Lys  
515

&lt;210&gt; 4006

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4006

Met Ser Lys Ala Gln Cys Ile Val Ala Asn Glu Ala Met Ala Pro Val

1	5	10	15
Val Asn Ser Ala Val Ser Asp Cys Pro Thr Leu Lys Thr Lys Leu Leu			
20	25	30	
Val Ser Asp Lys Ser Tyr Asp Gly Trp Leu Asp Phe Lys Lys Leu Ile			
35	40	45	
Gln Val Ala Pro Pro Lys Gln Thr Tyr Met Arg Thr Lys Ser Gln Asp			
50	55	60	
Pro Met Ala Ile Phe Phe Thr Lys Gly Thr Thr Gly Ala Pro Lys Met			
65	70	75	80
Val Glu Tyr Ser Gln Tyr Gly Leu Gly Met Gly Phe Ser Gln Ala Ser			
85	90	95	
Arg Arg Trp Met Asp Leu Gln Pro Thr Asp Val Leu Trp Ser Leu Gly			
100	105	110	
Asp Ala Phe Gly Gly Ser Leu Ser Leu Ser Ala Val Leu Gly Thr Trp			
115	120	125	
Phe Gln Gly Ala Cys Val Phe Leu Cys His Met Pro Thr Phe Cys Pro			
130	135	140	
Glu Thr Val Leu Asn Val Leu Ser Arg Phe Pro Ile Thr Thr Leu Ser			
145	150	155	160
Ala Asn Pro Glu Met Tyr Gln Glu Leu Leu Gln His Lys Cys Phe Thr			
165	170	175	
Arg Val Tyr Ser Val Pro Leu Pro Lys Gln			
180	185		

&lt;210&gt; 4007

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4007

Met Glu Glu Val Ile Phe Glu Glu Arg Ser Glu Glu Gly Lys Gly Val  
 1 5 10 15  
 Gly Thr Glu Asp Ile Gly Gly Thr Val Leu Pro Glu Thr Ser Gly Gln  
 20 25 30  
 Pro Gly Thr Gly Thr Thr Ser Arg Lys Gly Ser Cys Glu Gly Phe Val  
 35 40 45  
 Phe Ser Leu Gln Phe Val Asn Val Asn Thr Met Leu Thr Pro Lys Asn  
 50 55 60  
 Ser Lys Phe Pro Thr Trp Leu Leu Cys Leu Pro Pro Ser Phe Pro Pro  
 65 70 75 80  
 Phe Leu Pro Pro Ser Phe Leu Ser Ser Phe Leu Pro Ser Val Leu Pro  
 85 90 95  
 Phe Phe Pro Ile Cys Pro Thr Ser Met Asp Glu Phe Ser Ser Ser Leu  
 100 105 110  
 Gly Cys Phe Leu His Cys Thr  
 115

&lt;210&gt; 4008

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4008

Met Gly Pro Leu Ser Pro Tyr Ala Trp Ala Phe Ser His Thr Val Glu  
 1 5 10 15  
 Cys Ile Phe Ile Phe Asn Lys Ser Leu His Ala Phe Leu Ala Leu Cys



20	25	30
Val Leu Ser Asn Ser Leu Leu Lys Thr Ser Arg Thr Trp Thr Pro Thr		
35	40	45
Thr Gly Asn Val Tyr Phe Gly Gln Pro Gly Gly Arg Ser Lys Pro Lys		
50	55	60
Val Trp Asp Ser Phe Phe Ser Leu Ser Phe Leu Leu His Thr Arg Ala		
65	70	75
Phe Ser Phe His Phe Gln Leu Gly Thr Leu Gly Gly Gln His Leu Asn		
85	90	95
Val Glu Ala Thr Ala Gly Phe Trp Leu Trp Pro Val Lys Leu Met Gly		
100	105	110
Phe Arg Ala Glu Lys Ala Asp Cys His Leu Leu Val Cys Leu Arg Asn		
115	120	125
Leu Gly Leu Phe His Phe Phe Phe Leu Tyr Phe Ser Val Phe Lys Ser		
130	135	140
Leu Phe Ile Ile Ala Leu Pro Arg Arg Gly Asn Asp Phe Phe Phe Tyr		
145	150	155
Leu Phe Cys Thr Trp Ser Pro Ile Pro Met Cys Gly Ala Val Gln Ser		
165	170	175
Lys Leu Ala His Val Leu Arg Asp Leu Asn Leu Leu Met Leu Asn Ser		
180	185	190
Ser Leu Thr Val Leu Asn Trp Leu Arg Asn Lys Lys Ala His Pro Ala		
195	200	205
Ser Ser Ser His Cys Ser Ser Trp Leu Phe Leu		
210	215	

&lt;210&gt; 4009

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4009

Met Ala Leu Gly Phe Pro Gly Leu Gly Gly Gly Ser Cys Gly Arg  
1 5 10 15  
Gln Glu Gly Gly Arg Tyr Ser Phe Pro Arg Ala His Ala Gly Leu Ala  
20 25 30  
Gln Ala Gly Trp Ala Ser Pro Ser Leu Ser Ala Gly Ser Arg His Cys  
35 40 45  
Pro His Pro Val Thr Pro Leu Gln Leu Phe Phe Leu Phe Pro Thr Ala  
50 55 60  
Ser Leu Val Asp Ala Pro Ser Glu Gln Pro Cys Thr Glu Pro Arg Ala  
65 70 75 80  
Gly Pro Gly Arg Cys Thr Leu Ala Leu Gly Asp Ser Ser Phe Thr Glu  
85 90 95  
Thr Thr Ile Ile Leu Trp Phe Gln Gly Gly Asn  
100 105

&lt;210&gt; 4010

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4010

Met Tyr Ile Gln Phe Cys Ile Thr Leu Phe Ser Phe Ser Phe Phe  
1 5 10 15  
Phe Phe Phe Phe Cys Phe Leu Arg Gln Gly Leu Pro Leu Ser Leu Arg

20	25	30
Leu Gln Cys Ser Gly Thr Ile	Leu Ala His Cys Asn Leu	Arg Phe Leu
35	40	45
Gly Ser Asn Asp Pro Pro Thr	Ser Ala Ser Gln Val Ala	Trp Thr Thr
50	55	60
Gly Val His His His Ile Ser	Leu Ile Phe Val Phe Val	Glu Met Arg
65	70	75
Phe Cys Cys Val Ala Gln Val	Gly Leu Glu Tyr Leu Gly	Ser Ser Glu
85	90	95
Leu Ser Ala Leu Asp Ser Gln	Ser Ala Gly Ile Thr Gly	Val Ser Gln
100	105	110
Cys Ala Trp Pro Ala Leu Cys	Phe Phe Ser Phe Ala Val	Ala Cys Tyr
115	120	125

&lt;210&gt; 4011

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4011

Met Gly Pro Val Cys Arg Gly	Ser Ser Gly Pro Leu Arg	Val Ala Gly
1	5	10
Gly Ser Trp Thr Cys Leu Gly	Gly Gln Thr Pro Gly Arg	Gly Gln Leu
20	25	30
Arg Arg Ser Ala Ser Asp Phe	Ser Gly His Leu Gly Ser	Pro Ile Pro
35	40	45
Ile Ala Pro Gly Leu Asp Pro	Leu Pro Val Leu Ser Thr	Phe Ser Val
50	55	60

<210> 4012

<211> 534

<212> PRT

<213> Homo sapiens

<400> 4012

出証特 2 0 0 4 - 3 0 5 9 6 6 0

50	55	60
Phe Thr Phe Lys Arg His Ser Gln Asp Ala Ser Gln Asp Val Lys Leu		
65	70	75
80		
Tyr Ser Asp Thr Ala Pro Thr Glu Asp Leu Ile Glu Glu Val Thr Ala		
85	90	95
Asp His Pro Glu Val Val Thr Met Ile Glu Glu Thr Ile Lys Met Ser		
100	105	110
Gln Asp Ile Asn Phe Glu Gln Pro Tyr Glu Lys His Ala Glu Ile Leu		
115	120	125
Gln Glu Val Leu Gly Glu Val Met Glu Glu Asn Lys Asp Arg Phe Pro		
130	135	140
Gly Ala Pro Lys Tyr Gly Gly Trp Ile Val Asp Asn Cys Pro Ile Val		
145	150	155
160		
Lys Glu Leu Trp Met Ala Leu Ile Lys Lys Gly Ile Ile Pro Asp Leu		
165	170	175
Val Ile Tyr Leu Ser Asp Thr Glu Asn Asn Gly Lys Cys Leu Phe Asn		
180	185	190
Arg Ile Tyr Leu Gln Lys Lys Ser Glu Ile Asp Ser Lys Ile Leu Glu		
195	200	205
Arg Leu Leu Glu Glu Leu Gln Lys Lys Lys Lys Glu Glu Glu Glu Ala		
210	215	220
Arg Lys Ala Thr Glu Glu Glu Leu Arg Leu Glu Glu Glu Asn Arg Arg		
225	230	235
240		
Leu Leu Glu Leu Met Lys Val Lys Ala Lys Glu Ala Glu Glu Thr Asp		
245	250	255
Asn Glu Val Glu Glu Glu Ile Glu Gly Asp Glu Leu Glu Val His Glu		
260	265	270
Glu Pro Glu Ala Ser His Asp Thr Arg Gly Ser Trp Leu Pro Glu Glu		
275	280	285

Phe Glu Ala Ser Glu Val Pro Glu Thr Glu Pro Glu Ala Val Ser Glu  
290 295 300  
Pro Ile Glu Glu Thr Thr Val Glu Thr Glu Ile Pro Lys Gly Ser Lys  
305 310 315 320  
Glu Gly Leu Glu Ile Glu Lys Leu Ser Glu Thr Val Val Leu Pro Glu  
325 330 335  
Phe Pro Glu Asp Ser Tyr Pro Asp Val Pro Glu Met Glu Pro Phe Lys  
340 345 350  
Glu Lys Ile Gly Ser Phe Ile Ile Leu Trp Lys Gln Leu Glu Ala Thr  
355 360 365  
Ile Ser Glu Ala Tyr Ile Lys Ile Leu Asn Leu Glu Ile Ala Asp Arg  
370 375 380  
Thr Pro Gln Glu Leu Leu Gln Lys Val Val Glu Thr Met Glu Lys Pro  
385 390 395 400  
Phe Gln Tyr Thr Ala Trp Glu Leu Thr Gly Glu Asp Tyr Glu Glu Glu  
405 410 415  
Thr Glu Asp Tyr Gln Thr Glu Ala Glu Val Asp Glu Glu Leu Glu Glu  
420 425 430  
Glu Glu Glu Glu Glu Gly Glu Asp Lys Met Lys Glu Arg Lys Arg His  
435 440 445  
Leu Gly Asp Thr Lys His Phe Cys Pro Val Val Leu Lys Glu Asn Phe  
450 455 460  
Ile Leu Gln Pro Gly Asn Thr Glu Glu Ala Ala Lys Tyr Arg Glu Lys  
465 470 475 480  
Ile Tyr Tyr Phe Ser Ser Ala Glu Ala Lys Glu Lys Phe Leu Glu His  
485 490 495  
Pro Glu Asp Tyr Val Ala His Glu Glu Pro Leu Lys Val Arg Gln Tyr  
500 505 510  
Ser Tyr Leu Asn Asp Cys Ser His Arg Ile Phe Leu Gly Leu Ile Thr

515                      520                      525  
Asn His His Gln Phe Thr  
530

<210> 4013

<211> 572

<212> PRT

<213> Homo sapiens

<400> 4013

Met Ala Ser Ser Glu Thr Glu Ile Arg Trp Ala Glu Pro Gly Leu Gly  
1                      5                      10                      15  
Lys Gly Pro Gln Arg Arg Arg Trp Ala Trp Ala Glu Asp Lys Arg Asp  
20                      25                      30  
Val Asp Arg Ser Ser Ser Gln Ser Trp Glu Glu Glu Arg Leu Phe Pro  
35                      40                      45  
Asn Ala Thr Ser Pro Glu Leu Leu Glu Asp Phe Arg Leu Ala Gln Gln  
50                      55                      60  
His Leu Pro Pro Leu Glu Trp Asp Pro His Pro Gln Pro Asp Gly His  
65                      70                      75                      80  
Gln Asp Ser Glu Ser Gly Glu Thr Ser Gly Glu Glu Ala Glu Ala Glu  
85                      90                      95  
Asp Val Asp Ser Pro Ala Ser Ser His Glu Pro Leu Ala Trp Leu Pro  
100                      105                      110  
Gln Gln Gly Arg Gln Leu Asp Met Thr Glu Glu Glu Pro Asp Gly Thr  
115                      120                      125  
Leu Gly Ser Leu Glu Val Glu Glu Ala Gly Glu Ser Ser Ser Arg Leu  
130                      135                      140

Gly Tyr Glu Ala Gly Leu Ser Leu Glu Gly His Gly Asn Thr Ser Pro  
145 150 155 160  
Met Ala Leu Gly His Gly Gln Ala Arg Gly Trp Val Ala Ser Gly Glu  
165 170 175  
Gln Ala Ser Gly Asp Lys Leu Ser Glu His Ser Glu Val Asn Pro Ser  
180 185 190  
Val Glu Leu Ser Pro Ala Arg Ser Trp Ser Ser Gly Thr Val Ser Leu  
195 200 205  
Asp His Pro Ser Asp Ser Leu Asp Ser Thr Trp Glu Gly Glu Thr Asp  
210 215 220  
Gly Pro Gln Pro Thr Ala Leu Ala Glu Thr Leu Pro Glu Gly Pro Ser  
225 230 235 240  
His His Leu Leu Ser Pro Asp Gly Arg Thr Gly Gly Ser Val Ala Arg  
245 250 255  
Ala Thr Pro Met Glu Phe Gln Asp Ser Ser Ala Pro Pro Ala Gln Ser  
260 265 270  
Pro Gln His Ala Thr Asp Arg Trp Arg Arg Glu Thr Thr Arg Phe Phe  
275 280 285  
Cys Pro Gln Pro Lys Glu His Ile Trp Lys Gln Thr Lys Thr Ser Pro  
290 295 300  
Lys Pro Leu Pro Ser Arg Phe Ile Gly Ser Ile Ser Pro Leu Asn Pro  
305 310 315 320  
Gln Pro Arg Pro Thr Arg Gln Gly Arg Pro Leu Pro Arg Gln Gly Ala  
325 330 335  
Thr Leu Ala Gly Arg Ser Ser Ser Asn Ala Pro Lys Tyr Gly Arg Gly  
340 345 350  
Gln Leu Asn Tyr Pro Leu Pro Asp Phe Ser Lys Val Gly Pro Arg Val  
355 360 365  
Arg Phe Pro Lys Asp Glu Ser Tyr Arg Pro Pro Lys Ser Arg Ser His



370	375	380	
Asn Arg Lys Pro Gln Ala Pro Ala Arg Pro Leu Ile Phe Lys Ser Pro			
385	390	395	400
Ala Glu Ile Val Gln Glu Val Leu Leu Ser Ser Gly Glu Ala Ala Leu			
	405	410	415
Ala Lys Asp Thr Pro Pro Ala His Pro Ile Thr Arg Val Pro Gln Glu			
	420	425	430
Phe Gln Thr Pro Glu Gln Ala Thr Glu Leu Val His Gln Leu Gln Val			
	435	440	445
Ser Gly Thr His Gly Cys Gly Cys Val Thr Lys Ala Pro Val Gly Leu			
	450	455	460
Gly Trp Arg Leu Ile Gly Val Gly Arg Pro Gly Val Glu Ala Gly Trp			
465	470	475	480
Gly Gly Glu Ala Trp Asp Arg Ala Trp Leu Gly Trp Glu Ala Leu Gly			
	485	490	495
Arg Arg Leu Val Gly Trp Gly Gly Leu Gly Trp Arg Leu Ala Arg Val			
	500	505	510
Gly Ser Pro Gly Met Glu Ala Ser Gly Val Gly Arg Pro Gly Val Gly			
	515	520	525
Ser Pro Gly Val Glu Pro Gly Gly Val Gly Arg Pro Gly Val Glu Ala			
	530	535	540
Gly Trp Gly Arg Lys Pro Trp Asp Arg Gly Trp Trp Gly Gly Glu Ala			
545	550	555	560
Trp Gly Gly Gly Trp Leu Gly Gln Glu Ala Leu Gly			
	565	570	

&lt;210&gt; 4014

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4014

Met Ser Met Gln Arg Leu Ala Pro Lys Lys Thr Arg Lys Glu Gln Ser  
1 5 10 15  
Ala Asn Asp His Pro Ile Gly Gly Pro Glu Gly Arg Leu Phe Thr Ser  
20 25 30  
Gln Leu Gln Leu Lys Phe Arg Ala Leu Ser Glu Arg Asn Ser Trp Leu  
35 40 45  
Glu Val Ser Arg Ala Val Thr Pro Thr Ser Ala Ala Val Thr Ser Thr  
50 55 60  
Pro Ser Thr Ser Lys Pro Arg Gln Lys Arg Pro Thr Asn Ser Gln Ser  
65 70 75 80  
Arg Ser Ala Ala Lys Pro Thr Pro Val Val Phe Leu Gln Lys Ile Ile  
85 90 95  
Asn Cys Gly Glu Glu Glu Gly Lys  
100

&lt;210&gt; 4015

&lt;211&gt; 226

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4015

Met Gly Phe Cys Tyr Val Ala Gln Ala Gly Leu Lys Leu Leu Gly Ser  
1 5 10 15  
Ser Asp Leu Pro Thr Leu Ala Ser Gln Ser Ala Arg Ile Thr Gly Met

20	25	30
Ser His Trp Ala Trp Pro Ser Leu Phe Ser Tyr Phe Leu Gly Thr Cys		
35	40	45
Arg Pro Glu Ile His Met His Leu Ser Leu Leu Pro Asp Arg Arg Thr		
50	55	60
His Trp Asn Val Gly Ile Asp Phe Thr Ala Ser Asn Gly Asn Pro Leu		
65	70	75
Asp Pro Ser Ser Leu His Tyr Ile Asn Pro Met Gly Thr Asn Glu Tyr		
85	90	95
Leu Ser Ala Ile Trp Ala Val Gly Gln Ile Ile Gln Asp Tyr Asp Ser		
100	105	110
Asp Lys Met Phe Pro Ala Leu Gly Phe Gly Ala Gln Leu Pro Pro Asp		
115	120	125
Trp Lys Gln Tyr Phe Ile Leu Leu Ile Ile Thr Asp Gly Val Ile Ser		
130	135	140
Asp Met Glu Glu Thr Arg His Ala Val Val Gln Ala Ser Lys Leu Pro		
145	150	155
Met Ser Ile Ile Ile Val Gly Val Gly Asn Ala Asp Phe Ala Ala Met		
165	170	175
Glu Phe Leu Asp Gly Asp Ser Arg Met Leu Arg Ser His Thr Gly Glu		
180	185	190
Glu Ala Ala Arg Asp Ile Val Gln Phe Val Pro Phe Arg Glu Phe Arg		
195	200	205
Asn Val Ser Val Gly Leu Gly Trp Glu Gly Ala Val Thr Gly Ser Gln		
210	215	220
Pro Pro		
225		

&lt;210&gt; 4016

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4016

Met Gly Arg Arg Asp Gly Asp Glu Arg Ser Cys Ser Gly Leu Gly Thr

1 5 10 15

Pro Lys Ala Ala Asp Ser Ile Trp Leu Ser Val Pro Gln Ser Pro Leu

20 25 30

Leu Cys Thr Lys Phe Thr Val Leu Ala Leu Lys Ser Asn Phe Glu Phe

35 40 45

Ser Lys Asp Val Cys Ile Ala His Ala Asn Glu Leu Ser Val His Trp

50 55 60

Asn Asp Thr Ile Thr Thr Gln Met Lys Arg Thr Gly Trp Asn Ile His

65 70 75 80

Gln Pro Thr Asn Val Ile Ser Gln Pro Thr Leu Gln Thr Pro Ser Gln

85 90 95

Lys Ser Ile Gln Phe Arg Ile Ala His Cys Trp Gln Arg Lys Asn Val

100 105 110

Thr Asn Leu Phe Thr Gly Glu Tyr

115 120

&lt;210&gt; 4017

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4017

Met Thr Ser Cys Ser Met Ala Pro Ser Thr Pro Ser Ser Ser Ser Gly  
 1 5 10 15  
 Ala Lys Ala Trp Arg Arg Ser Pro Glu Ala Pro Ser Pro Trp Ser Cys  
 20 25 30  
 Ser Ser Glu Cys Arg His Asn Glu Ala Tyr Thr Trp Thr Asn Pro Thr  
 35 40 45  
 Cys Cys Val His Asn Val Ile Ile Gly Lys Leu Trp Ile Glu Gln Tyr  
 50 55 60  
 Gly Thr Val Glu Ile Leu Asn His Arg Thr Gly His Lys Cys Val Leu  
 65 70 75 80  
 His Phe Lys Pro Cys Gly Leu Phe Gly Lys Glu Leu His Lys Val Glu  
 85 90 95  
 Gly His Ile Gln Asp Lys Asn Lys Lys Lys Leu Phe Met Ile Tyr Gly  
 100 105 110  
 Lys Trp Thr Glu Cys Leu Trp Gly Ile Asp Pro Val Ser Tyr Glu Ser  
 115 120 125  
 Phe Lys Lys Gln Glu Arg Arg Gly Asp His Leu Arg Lys Ala Lys Leu  
 130 135 140  
 Val Arg Ala Gly Ala Ser Pro Gly Arg Ala Glu Pro Trp Val Leu Arg  
 145 150 155 160  
 Ala Ala Arg Pro Leu Leu Pro Leu Ala His Leu Leu Gly Ser Gln Gly  
 165 170 175  
 Thr Phe Gly Pro His Gln Glu Arg  
 180

&lt;210&gt; 4018

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4018

Met	Ser	Thr	Ser	Leu	Leu	Ile	Cys	Lys	Ser	Arg	Ser	Cys	Phe	Leu	Val
1				5					10					15	
Tyr	Leu	Ala	Cys	Val	Tyr	Leu	Tyr	Gly	Val	Ala	Arg	Arg	Asp	His	Arg
				20				25					30		
Asn	Ala	Cys	Ser	Leu	Arg	Gln	Gly	Phe	Gln	Thr	Val	Gly	Pro	Ser	Pro
				35				40					45		
Phe	Ser	Lys	Met	Gly	Asn	Gln	Leu	Ala	Ser	Gly	His	Gln	His	Tyr	Thr
				50			55				60				
Ala	Met	Lys	Gln	Asn	Lys	Val	Gly	Gln	Asn	Ala	Ser	Cys	Ser	Lys	Gly
				65		70			75					80	
Lys	Tyr	Cys	Phe	Val	Lys	Leu	Phe	Thr	His	Thr	Ser	Lys	Cys	Glu	Asn
				85				90						95	
Trp	Leu	Gln	Cys	Lys	Thr	Phe	Leu	Ala	Gly	Lys	Leu				
				100					105						

&lt;210&gt; 4019

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4019

Met	Ile	Ser	Lys	Arg	Phe	Leu	Ser	Lys	Ala	Asp	Leu	Leu	Leu	Gln	Asn
1				5					10					15	
Gly	Ala	Ala	Cys	Thr	Pro	Gly	His	Ser	Glu	Ser	Thr	Pro	Asn	Lys	Gly

	20		25		30
Gly	Glu	Val	Val	Phe	Ile
Pro	Asn	Thr	Ala	Ser	Ser
Cys	Phe	Cys	Val		
	35		40		45
Leu	Ser	Pro	Leu	Ala	Arg
Val	Gln	Ser	Lys	Leu	Val
Leu	Ile	Gly	Tyr		
	50		55		60
Phe	Lys	Gln	Glu	Gly	Cys
Gly	Leu	Gln	Gln	Trp	Glu
Glu	Gln	Leu	Pro		
	65		70		75
Arg	Ala	Arg	Glu	Thr	Phe
Pro	Asp	Lys	Glu	Gln	Met
Arg	Val	Thr	Gly		
	85		90		95
Trp	Asp	Trp	Trp	Glu	Lys
Cys	Leu	Gln	Asn	Gly	
	100		105		

&lt;210&gt; 4020

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4020

Met	Lys	Glu	Ile	Val	Asp	Val	Thr	Arg	Val	Arg	Asn	Glu	Gly	Phe	Gln
1				5						10				15	
Asp	Lys	Asn	Leu	Gly	Glu	Ile	Gln	Gln	Leu	Ile	Gly	Thr	Thr	Thr	Glu
			20					25					30		
Glu	Leu	Thr	Glu	Asp	Asp	Leu	Thr	Glu	Met	Ser	Val	Leu	Lys	Pro	Met
		35					40					45			
Pro	Asp	Asn	Glu	Glu	Lys	Glu	Ile	Glu	Ala	Ala	Val	Pro	Glu	Asn	Lys
		50				55					60				
Met	Thr	Leu	Asp	Asn	Leu	Ala	Ala	Glu	Phe	Pro	Leu	Phe	Lys	Thr	Ser
		65			70				75					80	

Phe Asp Phe Phe Tyr Asp Met Asp Ser Ser Met Gly Thr Glu Thr Lys

85

90

95

Ala Asn Gly Glu Arg Arg Ile Gly Thr Ile

100

105

<210> 4021

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4021

Met Gly Leu Arg Trp Ser Arg Arg Leu Trp Pro Val Val Val His Ser

1

5

10

15

Trp Val Pro Ala Ser Gly Gly Thr His Cys Thr Tyr Gln Gly Ser Pro

20

25

30

Ser His Leu Leu Thr Gln Ala Leu Gly Leu Thr Gly Pro Pro Pro Ala

35

40

45

Ser Leu Ala Ala Phe Leu Ser Pro Trp Glu Ala Glu Pro Pro Ser Asp

50

55

60

Pro Leu Ser Pro Glu Ser Thr Ile Ala Leu Phe Ser Leu Asn Val Leu

65

70

75

80

Ile Phe Glu Met Ala Ala Ser Gly Pro Ser Glu Gly Arg Met Arg Glu

85

90

95

Asn Val Gly Gln Thr Arg Leu Glu Val Pro Cys Cys Asn Glu Val Cys

100

105

110

Ser Pro Thr

115



&lt;210&gt; 4022

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4022

Met Leu Leu Asn Glu Lys Trp Leu Pro Tyr Pro Glu Val Pro Ser Pro

1 5 10 15

Phe Leu Leu Gly Leu Thr Leu Ala His Gln Glu Leu Gly Cys Ser Pro

20 25 30

Val Asn Arg Thr Ser Met Gln Val Trp Asn Leu Ala Asn Cys Lys Leu

35 40 45

Lys Thr Asn His Ile Gly His Thr Gly Tyr Leu Asn Thr Val Thr Val

50 55 60

Ser Pro Asp Gly Ser Leu Cys Ala Ser Gly Gly Lys Val Phe Gly Asp

65 70 75 80

Lys Ala Ser Pro Thr Gln Trp Lys Thr Ala Ser Trp Lys Glu His Leu

85 90 95

Ala Ser Val Ser Asn Val Lys Trp Gln Thr Leu Ala Lys Met Val Leu

100 105 110

Gly Gly

&lt;210&gt; 4023

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4023

Met Ser Thr Thr Ser Ile Ser Ser Pro Gln Pro Gly Lys Leu Arg Ser  
 1 5 10 15  
 Pro Phe Leu Gln Lys Gln Leu Thr Gln Pro Glu Thr His Phe Gly Arg  
 20 25 30  
 Glu Pro Ala Ala Ala Ile Ser Arg Pro Arg Ala Asp Leu Pro Ala Glu  
 35 40 45  
 Glu Pro Ala Pro Ser Thr Pro Pro Cys Leu Val Gln Ala Glu Glu Glu  
 50 55 60  
 Ala Val Tyr Glu Glu Pro Pro Glu Gln Glu Thr Phe Tyr Glu Gln Pro  
 65 70 75 80  
 Pro Leu Val Gln Gln Gln Gly Ala Gly Ser Glu His Ile Asp His His  
 85 90 95  
 Ile Gln Gly Gln Gly Leu Ser Gly Gln Gly Leu Cys Ala Arg Ala Leu  
 100 105 110  
 Tyr Asp Tyr Gln Ala Ala Asp Asp Thr Glu Ile Ser Phe Asp Pro Glu  
 115 120 125  
 Asn Leu Ile Thr Gly Ile Glu Val Ile Asp Glu Gly Trp Trp Arg Gly  
 130 135 140  
 Tyr Gly Pro Asp Gly His Phe Gly Met Phe Pro Ala Asn Tyr Val Glu  
 145 150 155 160  
 Leu Ile Glu

&lt;210&gt; 4024

&lt;211&gt; 115

&lt;212&gt; PRT

<213> Homo sapiens

<400> 4024

Met Met Met Cys Val Met Ser Arg Leu Ser Val Pro Thr Asn Ser Tyr  
1 5 10 15  
Glu Met Glu Pro Leu Gly Gln Ser Ser Glu Leu Val Leu Leu Leu Phe  
20 25 30  
Leu Asp Lys Gly Leu Leu Leu Leu Ile Leu Ser Ile Asp Arg Asn Gln  
35 40 45  
Glu Glu Asn Thr Phe Thr Arg Leu Ile Ile Thr Tyr Lys Val Leu Gln  
50 55 60  
Ala Val Leu Met Cys Ser Ser Glu Asp Ile Ser Gly Thr Ala Ala Met  
65 70 75 80  
Ile Glu Pro Thr Tyr Trp Leu Ser Leu Leu Lys Cys Ile Val Ile His  
85 90 95  
Leu Asn Leu Phe Val Trp Gly Phe Cys Trp Phe Cys Phe Leu Gln Gly  
100 105 110  
Ala Asp Arg  
115

<210> 4025

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4025

Met Ile Ser Ala His Cys Asn Leu Arg Leu Ser Gly Ser Ser Asp Ser  
1 5 10 15

Pro Ala Ser Gly Ser Arg Val Ala Gly Ile Ala Asp Lys Tyr Ala Glu  
                   20                                  25                                  30  
 Ala Cys Phe Gln Gly Gly Glu Arg Asp Ser Phe Ser Ser Ala Gly His  
                   35                                  40                                  45  
 Arg Ala Asn Leu Lys Cys Ser Thr Val Val Thr Trp Arg Asp Leu Leu  
                   50                                  55                                  60  
 Ser Ser His Ser Arg Gly Pro Phe Trp Gly Gln Gly Asp Phe Ser Val  
                   65                                  70                                  75                                  80  
 Arg Pro Val Asp Leu Ile Glu Met Met Ser Cys His Ile Ala Gln Ala  
                                   85                                  90                                  95  
 Gly Leu Lys Leu Gln Ala  
                                   100

&lt;210&gt; 4026

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4026

Met Gln Ala Thr Cys Leu His Val Arg Gly Ser Leu Glu Ser Ser His  
           1                                  5                                  10                                  15  
 Arg Ala Thr Pro Trp Leu Gly Ser Ser Pro Ala Leu Leu Pro Pro Ser  
                   20                                  25                                  30  
 Pro Ser Pro Ala Ala Ala Leu Ser Met Ala Glu Pro Leu Leu Pro Leu  
                   35                                  40                                  45  
 Leu Glu Gly Arg Ser Thr Glu Gln Ile Gln Glu Arg Asn His Cys Val  
                   50                                  55                                  60  
 Phe His Arg Arg Glu Ser Thr Leu Asp Phe Leu Cys Asn Leu Leu Leu

65                      70                      75                      80  
 His Phe His Arg Asp Ser Tyr Leu Cys Ser Val Thr Gln Leu Lys Pro  
                                  85                      90                      95  
 Ser Lys Ile Arg Leu Pro Cys Leu His Lys Gly His His Asp Gly Asn  
                                  100                      105                      110  
 Gly Cys Thr Ser Pro Cys Val Trp Thr Glu Ala Asp  
                                  115                      120

<210> 4027

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4027

Met Ile Ile Ile Val Arg Ile Ala Ile Ile Lys Lys Ser Arg Asn Asn  
 1                      5                      10                      15  
 Ser Cys Trp Cys Gly Cys Arg Lys Lys Arg Met His Val Tyr Cys Ser  
                                  20                      25                      30  
 Trp Glu Gln Leu Val Gln Pro Leu Trp Lys Ala Val Trp Arg Phe Leu  
                                  35                      40                      45  
 Lys Lys Leu Lys Ile Glu Leu Pro Phe Asn Pro Ala Ile Pro Leu Leu  
                                  50                      55                      60  
 Gly Val Tyr Pro Lys Glu Asp Lys Ser Phe Tyr Glu Asn Ala Cys Ser  
 65                      70                      75                      80  
 Cys Val Phe Ile Ala Ala Leu Phe Thr Ile Ala Lys Ser Trp Ile Gln  
                                  85                      90                      95  
 Pro Lys Cys Leu Ser Ala Val Val Trp Ile Lys Arg Met Trp Cys Ile  
                                  100                      105                      110

His Thr Glu Ile Leu Cys Ser His Lys Asn Met Lys Leu Leu Ser Phe

115

120

125

Ala Ala Thr Trp Met Lys Pro Glu Gly His Tyr Pro Lys

130

135

140

<210> 4028

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4028

Met Arg Tyr Gly Pro Gly Lys Glu Ala Ser Pro Arg Pro Leu Gln Ala

1

5

10

15

Pro Arg Lys Val Ser Ile Glu Gly Arg Glu Leu Gly Lys Leu Ser Gln

20

25

30

Gln Gly Trp Lys Glu Val Gly Asn Pro Phe Ser Gly Ser Leu Pro Val

35

40

45

Lys Leu Leu Ser Ser Gly Arg Ser Cys Pro Arg Tyr Arg Met Val Ser

50

55

60

Ser Val Cys Gln Ser Ser Thr Gln Asn Leu Gly Pro Cys Gln Ser Cys

65

70

75

80

Thr Lys Asp His Thr Val Leu Ser Ser Tyr Ser Val Val Val Phe Val

85

90

95

Thr Ile His Tyr Leu Ile Ile Phe Lys Tyr Thr Ser Cys Phe Ile Asp

100

105

110

Phe

&lt;210&gt; 4029

&lt;211&gt; 360

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4029

Met Gln Ile Ile Arg His Ser Glu Gln Thr Leu Lys Thr Ala Leu Ile

1 5 10 15

Ser Lys Asn Pro Val Leu Val Ser Gln Tyr Glu Lys Leu Asp Ala Gly

20 25 30

Glu Gln Arg Leu Met Asn Glu Ala Phe Gln Pro Ala Ser Asp Leu Phe

35 40 45

Gly Pro Ile Thr Leu His Ser Pro Ser Asp Trp Ile Thr Ser His Pro

50 55 60

Glu Ala Pro Gln Asp Phe Glu Gln Phe Phe Ser Asp Pro Tyr Arg Lys

65 70 75 80

Thr Pro Ser Pro Asn Lys Arg Ser Ile Tyr Ile Gln Ser Ile Gly Ser

85 90 95

Leu Gly Asn Thr Arg Ile Ile Ser Glu Glu Tyr Ile Lys Trp Leu Thr

100 105 110

Gly Tyr Cys Lys Ala Tyr Phe Tyr Gly Leu Arg Val Lys Leu Leu Glu

115 120 125

Pro Val Pro Val Ser Val Thr Arg Cys Ser Phe Arg Val Asn Glu Asn

130 135 140

Thr His Asn Leu Gln Ile His Ala Gly Asp Ile Leu Lys Phe Leu Lys

145 150 155 160

Lys Lys Lys Pro Glu Asp Ala Phe Cys Val Val Gly Ile Thr Met Ile

165 170 175

Asp Leu Tyr Pro Arg Asp Ser Trp Asn Phe Val Phe Gly Gln Ala Ser  
180 185 190  
Leu Thr Asp Gly Val Gly Ile Phe Ser Phe Ala Arg Tyr Gly Ser Asp  
195 200 205  
Phe Tyr Ser Met His Tyr Lys Gly Lys Val Lys Lys Leu Lys Lys Thr  
210 215 220  
Ser Ser Ser Asp Tyr Ser Ile Phe Asp Asn Tyr Tyr Ile Pro Glu Ile  
225 230 235 240  
Thr Ser Val Leu Leu Leu Arg Ser Cys Lys Thr Leu Thr His Glu Ile  
245 250 255  
Gly His Ile Phe Gly Leu Arg His Cys Gln Trp Leu Ala Cys Leu Met  
260 265 270  
Gln Gly Ser Asn His Leu Glu Glu Ala Asp Arg Arg Pro Leu Asn Leu  
275 280 285  
Cys Pro Ile Cys Leu His Lys Leu Gln Cys Ala Val Gly Phe Ser Ile  
290 295 300  
Val Glu Arg Tyr Lys Ala Leu Val Arg Trp Ile Asp Asp Glu Ser Ser  
305 310 315 320  
Asp Thr Pro Gly Ala Thr Pro Glu His Ser His Glu Asp Asn Gly Asn  
325 330 335  
Leu Pro Lys Pro Val Glu Ala Phe Lys Glu Trp Lys Glu Trp Ile Ile  
340 345 350  
Lys Cys Leu Ala Val Leu Gln Lys  
355 360

&lt;210&gt; 4030

&lt;211&gt; 209

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 4030

Met	Leu	Gly	Thr	Asp	Arg	Cys	Val	Val	Glu	Glu	Trp	Leu	Ser	Glu	Phe
1				5					10					15	
Lys	Ala	Leu	Pro	Asp	Thr	Gln	Ile	Thr	Ser	Tyr	Ala	Ala	Thr	Leu	His
			20					25						30	
Arg	Lys	Lys	Thr	Leu	Val	Pro	Ala	Leu	Tyr	Lys	Val	Ile	Gln	Asp	Ser
			35					40						45	
Asn	Asn	Glu	Leu	Leu	Glu	Pro	Val	Cys	His	Gln	Leu	Phe	Glu	Leu	Tyr
			50					55						60	
Arg	Ser	Ser	Glu	Val	Arg	Leu	Lys	Arg	Phe	Thr	Leu	Gln	Phe	Leu	Pro
			65					70						75	
Glu	Leu	Met	Trp	Val	Tyr	Leu	Arg	Leu	Thr	Val	Ser	Arg	Asp	Arg	Gln
				85					90					95	
Ser	Asn	Gly	Cys	Ile	Glu	Ala	Leu	Leu	Leu	Gly	Ile	Tyr	Asn	Leu	Glu
			100						105					110	
Ile	Ala	Asp	Lys	Asp	Gly	Asn	Asn	Lys	Val	Leu	Ser	Phe	Thr	Ile	Pro
			115						120					125	
Ser	Leu	Ser	Lys	Pro	Ser	Ile	Tyr	His	Glu	Pro	Ser	Thr	Ile	Gly	Ser
			130						135					140	
Met	Ala	Leu	Thr	Glu	Gly	Ala	Leu	Cys	Gln	His	Asp	Leu	Ile	Arg	Val
			145						150					155	
Val	Tyr	Ser	Asp	Leu	His	Pro	Gln	Arg	Glu	Thr	Phe	Thr	Ala	Gln	Asn
				165						170				175	
Arg	Phe	Glu	Val	Leu	Ser	Phe	Leu	Met	Leu	Cys	Tyr	Asn	Ser	Ala	Ile
			180							185				190	
Val	Tyr	Met	Pro	Ala	Ser	Ser	Tyr	Gln	Ser	Leu	Cys	Arg	Met	Gly	Ser
			195							200				205	

Arg

&lt;210&gt; 4031

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4031

Met Leu Glu Pro Ser Ala Lys Cys Pro Arg Gln Glu Gly Lys Tyr Pro

1 5 10 15

His Arg Gly Arg Pro Gly Asp Pro Asp Phe Arg Ala Ala Gly Glu Glu

20 25 30

Gly Arg Gly Arg Trp Gly Ala Leu Gln Phe Arg Ser Thr Gly Asn Pro

35 40 45

Glu Lys Ser Ser Pro Leu Arg Gly Leu Pro Ser Pro Ala Pro Ser Leu

50 55 60

Pro His Arg Ala Leu Gly Ala Ala Ala Gly Arg Gly Asp Arg Arg Gly

65 70 75 80

Arg Glu Asp Arg Glu Ala Lys Glu Leu Gly Trp Gly Val Arg Val Trp

85 90 95

Trp Arg Gly Trp Asp Asp Thr Gly Val Leu Arg Gly Gly Ala Gly Arg

100 105 110

Lys Ala Arg Arg Pro Gly Gln Val Gly Val Arg Arg Ser Gly Arg Gln

115 120 125

Glu Arg Gly Cys Gly Arg Gly Arg Leu Gly Phe

130 135

&lt;210&gt; 4032

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4032

Met Arg Pro Leu Ala Ser Leu Ser Gly Gly Gln Lys Ser Arg Val Ala

1 5 10 15

Phe Ala Gln Met Thr Met Pro Cys Pro Asn Phe Tyr Ile Leu Asp Glu

20 25 30

Pro Thr Asn His Leu Asp Met Glu Thr Ile Glu Ala Leu Gly Arg Ala

35 40 45

Leu Asn Asn Phe Arg Gly Gly Val Ile Leu Val Ser His Asp Glu Arg

50 55 60

Phe Ile Arg Leu Val Cys Arg Glu Leu Trp Val Cys Glu Gly Gly Gly

65 70 75 80

Val Thr Arg Val Glu Gly Gly Phe Asp Gln Tyr Arg Ala Leu Leu Gln

85 90 95

Glu Gln Phe Arg Arg Glu Gly Phe Leu

100 105

&lt;210&gt; 4033

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4033

Met Ala Tyr Gly Phe Arg Asn Ile Gln Asn Leu Val Gln Arg Leu Lys  
 1 5 10 15  
 Arg Gly Arg Cys Pro Tyr His Tyr Val Glu Val Met Ala Cys Pro Ser  
 20 25 30  
 Gly Cys Leu Asn Gly Gly Gly Gln Leu Gln Ala Pro Asp Arg Pro Ser  
 35 40 45  
 Arg Glu Leu Leu Gln His Val Glu Arg Leu Tyr Gly Met Val Arg Ala  
 50 55 60  
 Glu Ala Pro Glu Asp Ala Pro Gly Val Gln Glu Leu Tyr Thr His Trp  
 65 70 75 80  
 Leu Gln Gly Thr Asp Ser Glu Cys Ala Gly Arg Leu Leu His Thr Gln  
 85 90 95  
 Tyr His Ala Val Glu Lys Ala Ser Thr Gly Leu Gly Ile Arg Trp  
 100 105 110

&lt;210&gt; 4034

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4034

Met Pro Leu Gly Ser Gly His Arg Trp Leu His Ser Pro Leu Ala Pro  
 1 5 10 15  
 Cys Arg Cys Pro Cys Thr Leu Pro Pro Ser Arg Pro Thr Arg Asp Ala  
 20 25 30  
 Ala Leu Pro Trp Pro Ala Ala Val Leu Cys Cys Gly Phe Leu Ala Val  
 35 40 45  
 Ala Gly Thr Gly Pro Pro Pro Pro Val Pro Ser Gly His Arg Leu Gln  
 1

50                      55                      60  
 Gln Arg Leu Gly Cys Arg Glu Gly Tyr Gln Ser Trp Glu Asn Trp Pro  
 65                      70                      75                      80  
 Pro Cys Arg Phe Thr Glu Gln Gly Gly Ser His Arg Glu Val Ser Gly  
                          85                      90                      95  
 Phe Phe Leu Arg  
                          100

<210> 4035

<211> 282

<212> PRT

<213> Homo sapiens

<400> 4035

Met Ala Leu Ser Cys Ser Ser Trp Cys Arg Ser Pro Gln Trp Lys Phe  
 1                      5                      10                      15  
 Glu Ala Ser Lys Ser His Ala Asn His Arg Pro Ile Cys Leu Ser Pro  
                          20                      25                      30  
 Arg Ile Trp Pro Gly Ser Ala Ser Ala Thr Ser Thr Val Cys Ser Ser  
                          35                      40                      45  
 Ser Glu Ser Phe Leu Pro Arg Gly Pro Pro Ala Val Ser Leu Leu Leu  
 50                      55                      60  
 His Gly Pro Pro Thr Val Ser Phe Pro Pro Pro Trp Pro Thr His His  
 65                      70                      75                      80  
 Val Leu Pro Ser Pro Val Ala His Pro Pro Cys Pro Cys Leu Pro Pro  
                          85                      90                      95  
 Asp Met Pro Leu Glu Leu Pro Gly Pro Cys Cys Cys Pro His Cys Leu  
                          100                      105                      110

Cys Asp Ser Ala Pro Pro Ser Leu Pro Cys Pro Thr Leu Val Gln Gly  
115 120 125  
Ala Ser Arg Pro Ile Leu Ile Leu Arg Ala Phe Pro Gly Pro Cys His  
130 135 140  
Ser Val Pro Cys His Asp Leu Lys Leu Gln Val Gly Ala Ser Pro Phe  
145 150 155 160  
Arg His Gly Cys Pro Pro Ser Val Arg Cys Pro Ser Arg Leu Ile Ala  
165 170 175  
Gly Val Pro Gly Cys Ser Val Leu Ser Trp Ser Leu Gly His Ser Leu  
180 185 190  
Ser Gly Ile Asp Ser Arg Val Gly Ala Thr Pro Gly Leu Gly His Ser  
195 200 205  
Leu Ser Trp Val Arg Ala Pro Pro Gly Leu Gly His Ser Leu Ser Gly  
210 215 220  
Val Gly Ala Thr Pro Gly Leu Gly His Leu Leu Ser Gly Val Gly Ala  
225 230 235 240  
Ser Pro Gly Glu Asp Thr Glu His Ala Ala Ala Leu Thr Pro Cys Gly  
245 250 255  
Val Pro Pro Val Pro Gly Cys Arg Ser His Ser Gln Pro Leu Ser His  
260 265 270  
Leu Val Ser Ser Ser Arg Cys Cys Gly Pro  
275 280

&lt;210&gt; 4036

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4036

Met Asn Lys Val Asn Leu Leu Val Ile Phe Lys Leu Leu Val Leu Gly  
1 5 10 15  
Val Cys Asn Lys Val Lys Val Tyr Ile Leu Val Leu Pro Lys Ser His  
20 25 30  
Leu Lys Tyr Leu Gln Ile Phe Asn Leu Cys Val Val Tyr Pro Ile Ile  
35 40 45  
Ala Pro Ile Ser Gly Lys Ser Val Phe Leu Lys Phe Lys Lys Glu Glu  
50 55 60  
Lys Gln Gln Ser Asp Tyr Phe Ala Val Glu Lys Lys Ser Val Ser Phe  
65 70 75 80  
Met Gly Tyr Thr Phe Ile Phe Leu Cys Ser Val Lys Leu Ala Thr Leu  
85 90 95  
Trp Gly Thr Trp Val Leu Phe Leu Leu Val His Asp Val Cys Phe Arg  
100 105 110  
Thr Tyr Leu Leu Thr Phe Gln Arg Thr Ser Tyr Ile Thr Cys Leu Thr  
115 120 125  
Tyr

&lt;210&gt; 4037

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4037

Met Gly Asn Leu Cys Ser Trp Thr Leu Lys Ile Leu Glu Ser Leu His  
1 5 10 15

Ile Arg Asn Val Lys Met Ala Trp Pro Ser Lys Gly Phe Ser Asn Ser  
                     20                    25                    30  
 Ser Cys Leu Gln Ala Val Pro Gln Thr Glu His Tyr Asn Leu Arg Ser  
                     35                    40                    45  
 Phe Leu Leu Ala Tyr Asn Ser Asp Ser Gly Ser Pro Lys Gln Ser Ile  
                     50                    55                    60  
 Trp Leu Ala Ile Ala Arg Leu Val Asn Gly Ile Phe Tyr Leu Leu Lys  
                     65                    70                    75                    80  
 Thr Ala Lys Tyr Cys Thr Arg Gly Arg Ser Trp Ala Ala Gly Arg Glu  
                                     85                    90                    95  
 Gln Gln Met Glu Arg Ser Leu Leu Ile Val Leu Ile Ser Trp Lys Thr  
                     100                    105                    110  
 Thr Val Arg Arg Cys  
                     115

<210> 4038

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4038

Met Pro Gln Ile Pro Arg Asp Asn Lys Ala Ala Ala Leu Leu Met Leu  
           1                    5                    10                    15  
 Thr Lys Asn Val Asp Phe Val Lys Asp Ala His Glu Glu Met Glu Gln  
                     20                    25                    30  
 Ala Val Glu Glu Cys Asp Pro Tyr Ser Gly Leu Leu Asn Asp Thr Glu  
                     35                    40                    45  
 Glu Asn Asn Ser Asp Asn His Asn His Glu Asp Asp Val Leu Gly Phe



50 55 60  
Pro Ser Asn Gln Asp Leu Tyr Trp Ser Glu Asp Asp Gln Glu Leu Ile  
65 70 75 80  
Ile Pro Cys Leu Ala Leu Val Arg Ala Ser Lys Ala Cys Leu Lys Lys  
85 90 95  
Ile Arg Met Leu Val Ala Glu Asn Gly Lys Lys Asp Gln Val Ala Gln  
100 105 110  
Leu Asp Asp Ile Val Asp Ile Ser Asp Glu Ile Ser Pro Ser Val Asp  
115 120 125  
Asp Leu Ala Leu Ser Ile Tyr Pro Pro Met Cys His Leu Thr Val Arg  
130 135 140  
Ile Asn Val Ser Thr Gly Phe Glu Gly Ile Ala Thr Glu Gln Met Gly  
145 150 155 160  
Arg Ile Ser Leu Ile Thr Ser Ile Ser Cys Lys Leu  
165 170

&lt;210&gt; 4039

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4039

Met Met Lys Ile Pro Lys Gly Met Ala Thr Lys Ala Lys Ile Asp Lys  
1 5 10 15  
Trp Asp Leu Ile Lys Leu Lys Ser Phe Cys Thr Ala Lys Glu Thr Thr  
20 25 30  
Ile Arg Val Asn Arg Gln Pro Thr Lys Trp Glu Lys Asn Phe Glu Ile  
35 40 45

Tyr Leu Ser Asp Lys Gly Leu Ile Ser Arg Ile Tyr Lys Glu Leu Lys  
 50 55 60  
 Gln Ile Tyr Lys Lys Lys Thr Asn Asn Ser Ile Arg Asn Trp Ala Lys  
 65 70 75 80  
 Asp Met Asn Arg His Ile Ser Lys Glu Asp Ile Tyr Ala Ala Thr Lys  
 85 90 95  
 His Met Arg Lys Ser Ser Thr Ser Leu Val Ile Arg Glu Met Gln Ile  
 100 105 110  
 Lys Thr Thr Met Arg His His Leu Thr Ser Val Lys Met Ala Ile Ile  
 115 120 125  
 Lys Lys Ser Gly Asn Asn Arg Phe Trp Arg Glu Cys Gly Glu Ile Glu  
 130 135 140  
 Met Val Leu His Cys Trp Trp Glu Cys Lys Leu Val Gln Pro Leu Trp  
 145 150 155 160  
 Lys Thr Val Trp

<210> 4040

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4040

Met Pro Gln Pro Pro Ser Trp Asp Tyr Arg Tyr Ala Pro Pro Arg Leu  
 1 5 10 15  
 Thr Asn Ser Asn Phe Cys Ile Phe Ser Arg Asp Arg Phe His His Val  
 20 25 30  
 Gly Gln Ala Gly Leu Glu Leu Pro Thr Ser Gly Asp Pro Pro Thr Leu

35 40 45  
Ala Ser Gln Ser Ala Gly Ile Thr Ser Val Ser His Cys Thr Pro Pro  
50 55 60  
Thr Ile Ile Phe Ser Leu Ile Ser Phe Asn Ser Phe Cys Leu Tyr Asp  
65 70 75 80  
Leu Leu Phe Ser Phe Leu Ser Ser Ile Leu Val Asn Ile Phe Phe Ile  
85 90 95  
Val Ser Thr Phe Ile Cys Pro Leu Phe Ser Phe Ile Phe Thr Ser Val  
100 105 110  
Met Val Ile Leu Pro Val Phe Trp Arg Trp Cys Leu Asn Met Phe Pro  
115 120 125  
Arg Leu Asp Leu Asn Ala  
130

&lt;210&gt; 4041

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4041

Met Asp Leu Asn Tyr Thr Leu Lys Gln Met Asp Leu Thr Asp Ile Tyr  
1 5 10 15  
Arg Thr Phe His Pro Thr Thr Ala Glu Tyr Thr Leu Tyr Ser Thr Val  
20 25 30  
His Gly Thr Phe Ser Lys Ile Asp His Met Ile Gly His Lys Met Ser  
35 40 45  
Phe Asn Lys Phe Lys Lys Thr Glu Ile Ile Ser Ser Thr Leu Ser Asp  
50 55 60

His Ser Glu Ile Lys Leu Glu Ile Asn Ser Arg Arg Asn Leu Gln Asn  
 65                      70                      75                      80  
 His Ala Asn Thr Arg Lys Leu Asn Asn Leu Leu Leu Asn Glu His Trp  
                          85                      90                      95  
 Val Lys Asn Glu Ile Lys Met Glu Ile  
                          100                      105

<210> 4042

<211> 506

<212> PRT

<213> Homo sapiens

<400> 4042

Met Ile Met Ala Ser Phe Phe Leu Leu Arg Arg Lys Lys Ser Lys Ser  
 1                      5                      10                      15  
 Arg Ser Arg Ser His Glu Arg Lys Arg Ser Lys Ser Lys Glu Arg Lys  
                          20                      25                      30  
 Arg Ser Arg Asp Arg Glu Arg Lys Lys Ser Lys Ser Arg Glu Arg Lys  
                          35                      40                      45  
 Arg Ser Arg Ser Lys Glu Arg Arg Arg Ser Arg Ser Arg Ser Arg Asp  
                          50                      55                      60  
 Arg Arg Phe Arg Gly Arg Tyr Arg Ser Pro Tyr Ser Gly Pro Lys Phe  
 65                      70                      75                      80  
 Asn Ser Ala Ile Arg Gly Lys Ile Gly Leu Pro His Ser Ile Lys Leu  
                          85                      90                      95  
 Ser Arg Arg Arg Ser Arg Ser Lys Ser Pro Phe Arg Lys Asp Lys Ser  
                          100                      105                      110  
 Pro Val Arg Glu Pro Ile Asp Asn Leu Thr Pro Glu Glu Arg Asp Ala

115	120	125	
Arg Thr Val Phe Cys Met Gln Leu Ala Ala Arg Ile Arg Pro Arg Asp			
130	135	140	
Leu Glu Glu Phe Phe Ser Thr Val Gly Lys Val Arg Asp Val Arg Met			
145	150	155	160
Ile Ser Asp Arg Asn Ser Arg Arg Ser Lys Gly Ile Ala Tyr Val Glu			
165	170	175	
Phe Val Asp Val Ser Ser Val Pro Leu Ala Ile Gly Leu Thr Gly Gln			
180	185	190	
Arg Val Leu Gly Val Pro Ile Ile Val Gln Ala Ser Gln Ala Glu Lys			
195	200	205	
Asn Arg Ala Ala Ala Met Ala Asn Asn Leu Gln Lys Gly Ser Ala Gly			
210	215	220	
Pro Met Arg Leu Tyr Val Gly Ser Leu His Phe Asn Ile Thr Glu Asp			
225	230	235	240
Met Leu Arg Gly Ile Phe Glu Pro Phe Gly Arg Ile Glu Ser Ile Gln			
245	250	255	
Leu Met Met Asp Ser Glu Thr Gly Arg Ser Lys Gly Tyr Gly Phe Ile			
260	265	270	
Thr Phe Ser Asp Ser Glu Cys Ala Lys Lys Ala Leu Glu Gln Leu Asn			
275	280	285	
Gly Phe Glu Leu Ala Gly Arg Pro Met Lys Val Gly His Val Thr Glu			
290	295	300	
Arg Thr Asp Ala Ser Ser Ala Ser Ser Phe Leu Asp Ser Asp Glu Leu			
305	310	315	320
Glu Arg Thr Gly Ile Asp Leu Gly Thr Thr Gly Arg Leu Gln Leu Met			
325	330	335	
Ala Arg Leu Ala Glu Gly Thr Gly Leu Gln Ile Pro Pro Ala Ala Gln			
340	345	350	

Gln Ala Leu Gln Met Ser Gly Ser Leu Ala Phe Gly Ala Val Ala Glu  
355 360 365  
Phe Ser Phe Val Ile Asp Leu Gln Thr Arg Leu Ser Gln Gln Thr Glu  
370 375 380  
Ala Ser Ala Leu Ala Ala Ala Ala Ser Val Gln Pro Leu Ala Thr Gln  
385 390 395 400  
Cys Phe Gln Leu Ser Asn Met Phe Asn Pro Gln Thr Glu Glu Glu Val  
405 410 415  
Gly Trp Asp Thr Glu Ile Lys Asp Asp Val Ile Glu Glu Cys Asn Lys  
420 425 430  
His Gly Gly Val Ile His Ile Tyr Val Asp Lys Asn Ser Ala Gln Gly  
435 440 445  
Asn Val Tyr Val Lys Cys Pro Ser Ile Ala Ala Ala Ile Ala Ala Val  
450 455 460  
Asn Ala Leu His Gly Arg Trp Phe Ala Gly Lys Met Ile Thr Ala Ala  
465 470 475 480  
Tyr Val Pro Leu Pro Thr Tyr His Asn Leu Phe Pro Asp Ser Met Thr  
485 490 495  
Ala Thr Gln Leu Leu Val Pro Ser Arg Arg  
500 505

&lt;210&gt; 4043

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4043

Met Trp Phe Leu Arg Arg Lys His Ala Gly Thr Ala Ile Pro Ser Arg

1	5	10	15												
Leu	Glu	Glu	His	Thr	Asp	Ala	Gly	Val	Ser	Glu	Pro	Asp	Leu	Gly	Ser
	20		25		30										
Ser	Leu	Thr	Ser	Ala	Ala	His	His	Arg	Gln	Ala	Cys	Lys	Ser	Tyr	Phe
	35		40		45										
Ser	Ser	Leu	Ser	Leu	His	Phe	Phe	His	Ile	Glu	Trp	Gly	Ser	Val	Leu
	50		55		60										
Pro	Ala	Met	Arg	Val	Val	Val	Asn	Ile	Gln	Arg	Lys	Leu	Ser	Arg	Ser
	65		70		75										
Thr	Ile	Thr	Leu	Glu	Asn	Cys	Leu	Ala	Val	Leu	Thr	Asp	Ala	Glu	His
	85		90		95										
Val	Gly	Thr	Ser	Gly	Pro	Ser	Ser	Pro	Thr	Ala	Gly	Asp	Thr	Leu	Ser
	100		105		110										
Arg	Tyr	Val	Pro	Thr	Cys	Thr	Arg	Lys	Tyr	Leu					
	115		120												

&lt;210&gt; 4044

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4044

Met	Asp	Ser	Ser	Ser	Ser	Gly	Val	Ser	Asp	Trp	Arg	Asp	Ala	Ser	Gly
1	5	10	15												
Arg	Gly	Ser	Phe	Pro	Gly	Ala	Pro	Ala	Phe	Val	Met	Val	Asp	Ala	Pro
	20		25		30										
Leu	Arg	Cys	His	Leu	Leu	Arg	Arg	Thr	Ser	Cys	Ser	Val	Leu	Asp	Arg
	35		40		45										

Trp Ala Pro Val Gly Pro Pro Arg Leu Glu Met Asn Leu Lys Gly Thr

50

55

60

Pro Cys Leu Gly Asp Leu Ser Gln Ala Gly Gln Arg Asn Asn Gln Thr

65

70

75

80

Thr Val Ser Ala Trp Arg Leu Gln Ser Phe Ala Gln Gly Pro Ser Glu

85

90

95

Gly Gly Leu Gly Lys Thr Ser Trp Gly Leu Gly Gln Leu Ser Lys Met

100

105

110

Asp Lys Glu Ser Asn His Leu Cys Leu His Ile Phe Phe Ile Ser Ser

115

120

125

Ser Gln Gln Pro

130

<210> 4045

<211> 506

<212> PRT

<213> Homo sapiens

<400> 4045

Met Pro Ser Ala Leu Ala Ile Phe Thr Cys Arg Pro Asn Ser His Pro

1

5

10

15

Phe Gln Glu Arg His Val Tyr Leu Asp Glu Pro Ile Lys Ile Gly Arg

20

25

30

Ser Val Ala Arg Cys Arg Pro Ala Gln Asn Asn Ala Thr Phe Asp Cys

35

40

45

Lys Val Leu Ser Arg Asn His Ala Leu Val Trp Phe Asp His Lys Thr

50

55

60

Gly Lys Phe Tyr Leu Gln Asp Thr Lys Ser Ser Asn Gly Thr Phe Ile



65	70	75	80
Asn Ser Gln Arg Leu Ser Arg Gly Ser Glu Glu Ser Pro Pro Cys Glu			
85	90	95	
Ile Leu Ser Gly Asp Ile Ile Gln Phe Gly Val Asp Val Thr Glu Asn			
100	105	110	
Thr Arg Lys Val Thr His Gly Cys Ile Val Ser Thr Ile Lys Leu Phe			
115	120	125	
Leu Pro Asp Gly Met Glu Ala Arg Leu Arg Ser Asp Val Ile His Ala			
130	135	140	
Pro Leu Pro Ser Pro Val Asp Lys Val Ala Ala Asn Thr Pro Ser Met			
145	150	155	160
Tyr Ser Gln Glu Leu Phe Gln Leu Ser Gln Tyr Leu Gln Glu Ala Leu			
165	170	175	
His Arg Glu Gln Met Leu Glu Gln Lys Leu Ala Thr Leu Gln Arg Leu			
180	185	190	
Leu Ala Ile Thr Gln Glu Ala Ser Asp Thr Ser Trp Gln Ala Leu Ile			
195	200	205	
Asp Glu Asp Arg Leu Leu Ser Arg Leu Glu Val Met Gly Asn Gln Leu			
210	215	220	
Gln Ala Cys Ser Lys Asn Gln Thr Glu Asp Ser Leu Arg Lys Glu Leu			
225	230	235	240
Ile Ala Leu Gln Glu Asp Lys His Asn Tyr Glu Thr Thr Ala Lys Glu			
245	250	255	
Ser Leu Arg Arg Val Leu Gln Glu Lys Ile Glu Val Val Arg Lys Leu			
260	265	270	
Ser Glu Val Glu Arg Ser Leu Ser Asn Thr Glu Asp Glu Cys Thr His			
275	280	285	
Leu Lys Glu Met Asn Glu Arg Thr Gln Glu Glu Leu Arg Glu Leu Ala			
290	295	300	

<210> 4046

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4046

Met Pro Pro Thr Ser Gln Leu Pro Thr Leu Asp Thr Ala Leu Gln Thr

1 5 10 15

Arg His Pro Trp Ala Leu Ser Ile Thr Arg Gly Ala Thr Val Ser Arg

20 25 30

Ala Pro Leu Gln Gly Arg Val Thr Ala Ile Val Pro Lys Ala Ser Cys

35 40 45

Leu His Gly Thr Pro Arg Cys Phe Leu Gln Arg Gly Val Pro Ser Trp

50 55 60

Ser Ser Pro Gln Thr Trp Ser Trp Pro Ala Pro Ser Gln Pro Phe Gln

65 70 75 80

Gln Gly Pro Arg Leu Met Thr Ala Pro Ala Pro His Pro Gly Ser Gly

85 90 95

Thr Arg Thr Ser Ser His His Pro Ser Pro Leu Arg Arg Ser Ser Leu

100 105 110

Ala Val Gln Val Pro Ile Ser Gly Glu Gly Met Trp Glu Gly Asp Arg

115 120 125

Glu Gly Leu Gly Ser Lys

130

&lt;210&gt; 4047

&lt;211&gt; 203

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4047

Met Ile Ile Leu Ile Val Asn Ile Gly Ile Leu Asn Val Lys Cys Gln  
1 5 10 15  
Thr Asn Val Thr Tyr Ala Gly Ala Leu Ala Leu Leu Ile Arg Phe Trp  
20 25 30  
Phe Lys Phe Cys His Ser Ser Ser Trp Val Arg Gly Phe Ala Val Ser  
35 40 45  
Phe Phe Phe Trp Thr Leu Asp Pro Glu Pro Val Leu Ala Ser Gln Phe  
50 55 60  
Leu Ser Leu Tyr Pro Phe Pro Ser Val Ser Ser Ser Leu Phe Pro Leu  
65 70 75 80  
Ser Leu Phe Val Phe Leu Ile Ser Phe Cys Phe Ser Glu Tyr Leu His  
85 90 95  
Phe Tyr Leu Cys Val Ser Val Tyr Phe Ser Val Tyr Leu Ser Val Leu  
100 105 110  
Gln Ser Val Phe Leu Phe Leu Ala Leu Arg Gln Cys Leu Phe Leu Ser  
115 120 125  
Ser Leu Ser Cys Ser Ala Met Ala Ile Ser Thr Ala Leu Phe Leu Thr  
130 135 140  
Leu Ile Phe Gly Leu Cys Val Ser Pro Ser His Phe Leu Ser His Ser  
145 150 155 160  
Val Ser Val Ser Ile Ser Val Ser Pro Leu Leu Cys Pro Gln Ser Leu  
165 170 175  
Cys Leu Pro Glu Ala Leu Phe Leu Ser Leu Leu Cys Cys Val Leu Asn  
180 185 190  
Leu Ser Val Ser Leu Arg Leu Tyr Phe Cys Leu  
195 200

&lt;210&gt; 4048

&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4048

Met Leu Cys Cys Leu Asp Ile Ser Ser Thr Arg Tyr Pro Lys Ser Ser

1 5 10 15

Leu Ser Ser Ser Lys Phe His Arg Ser Leu Gly Gln Gly Gln Met Leu

20 25 30

Pro Val Cys Leu His Ser Lys Ser Asp Leu Tyr Ser Ser Ser Gln Lys

35 40 45

Val Pro His Leu His Leu Arg Leu His Gln Pro Arg Leu His Cys Thr

50 55 60

Tyr Tyr Tyr Gln Tyr Phe Gly Gln Gly His Ser Thr Ser Leu Tyr Glu

65 70 75 80

Val Pro Asn Phe Pro Thr Ser Pro Cys Leu Leu Leu Ser Pro Pro Asn

85 90 95

Cys Ser Asn Leu Cys Leu Leu Pro Ser Ser Lys Val Ala Ser Thr Tyr

100 105 110

Leu Gly Ile Phe Thr Ala Ala Pro His Ser Trp Tyr Gln Phe Thr Val

115 120 125

Leu Ile Cys Ser Arg Ala Ala Ile Arg Thr Asp Ser Gly Leu Gly Asn

130 135 140

Leu

145

&lt;210&gt; 4049

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4049

Met Ala Thr Gly Val Cys Ser Asp Phe Ser Cys Val Glu Pro Ser Gly

1 5 10 15

Cys Ala Ala Trp Ala Gly Gly Met Leu Leu Ala Gly Gln Asp Val His

20 25 30

Gln Ala Gly Cys Gly Cys Thr Gly Leu Lys Gly Cys Phe Gly Arg Pro

35 40 45

Trp Cys Cys Arg Ala Ala Gly Arg Arg Val Leu Ala Arg Ser Gln Leu

50 55 60

Ser Leu Arg Phe Leu Leu Pro Leu Gly Val Cys Gly Cys Gly Gln Ile

65 70 75 80

Leu Arg Gly Ser Arg Pro Trp Glu Pro Thr Val Ser Gly Gly Trp Glu

85 90 95

Phe Leu Val Arg Gln Thr

100

&lt;210&gt; 4050

&lt;211&gt; 924

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4050

Met Arg Ser Lys Asp Ile Glu Ala Ser Gly Phe Asn Gly Thr Ala Ala

1	5	10	15
Phe Met Glu Val Arg Val Gln Ser Ile Val Val Glu Phe Ile Leu Thr			
20	25	30	
His Val Asp Gln Leu Phe Gly Gly Ala Ala Leu Ser Gly Gly Glu Val			
35	40	45	
Glu Ser Gly Trp Arg Ser Leu Pro Gly Thr Arg Ala Ser Gly Ser Pro			
50	55	60	
Glu Asp Leu Met Pro Arg Pro Leu Pro Tyr His Leu Pro Ser Ile Leu			
65	70	75	80
Gln Ala Gly Asp Gly Pro Pro Gln Met Arg Pro Tyr His Thr Ile Ile			
85	90	95	
Glu Ile Ala Glu His Lys Arg Lys Gly Ser Leu Lys Val Arg Lys Trp			
100	105	110	
Arg Ser Ile Phe Asn Leu Gly Arg Ser Gly His Glu Thr Lys Arg Lys			
115	120	125	
Leu Pro Arg Gly Ala Glu Asp Arg Glu Asp Lys Ser Asn Lys Gly Thr			
130	135	140	
Leu Arg Pro Ala Lys Ser Met Asp Ser Leu Ser Ala Ala Ala Gly Ala			
145	150	155	160
Ser Asp Glu Pro Glu Gly Leu Val Gly Pro Ser Ser Pro Arg Pro Ser			
165	170	175	
Pro Leu Leu Pro Glu Ser Leu Glu Asn Asp Ser Ile Glu Ala Ala Glu			
180	185	190	
Gly Glu Gln Glu Pro Glu Ala Glu Ala Leu Gly Gly Thr Asn Ser Glu			
195	200	205	
Pro Gly Thr Pro Arg Ala Gly Arg Ser Ala Ile Arg Ala Gly Gly Ser			
210	215	220	
Ser Arg Ala Glu Arg Cys Ala Gly Val His Ile Ser Asp Pro Tyr Asn			
225	230	235	240

Val Asn Leu Pro Leu His Ile Thr Ser Ile Leu Ser Val Pro Pro Asn			
	245	250	255
Ile Ile Ser Asn Val Ser Leu Ala Arg Leu Thr Arg Gly Leu Glu Cys			
	260	265	270
Pro Ala Leu Gln His Arg Pro Ser Pro Ala Ser Ser Pro Gly Pro Gly			
	275	280	285
Pro Gly Leu Gly Pro Gly Pro Pro Asp Glu Lys Leu Glu Ala Ser Pro			
	290	295	300
Ala Ser Ser Pro Leu Ala Asp Ser Gly Pro Asp Asp Leu Ala Pro Ala			
305	310	315	320
Leu Glu Asp Ser Leu Ser Gln Glu Val Gln Asp Ser Phe Ser Phe Leu			
	325	330	335
Glu Asp Ser Ser Ser Ser Glu Pro Glu Trp Val Gly Ala Glu Asp Gly			
	340	345	350
Glu Val Ala Gln Ala Glu Ala Ala Gly Ala Ala Phe Ser Pro Gly Glu			
	355	360	365
Asp Asp Pro Gly Met Gly Tyr Leu Glu Glu Leu Leu Gly Val Gly Pro			
	370	375	380
Gln Val Glu Glu Phe Ser Val Glu Pro Pro Leu Asp Asp Leu Ser Leu			
385	390	395	400
Asp Glu Ala Gln Phe Val Leu Ala Pro Ser Cys Cys Ser Leu Asp Ser			
	405	410	415
Ala Gly Pro Arg Pro Glu Val Glu Glu Glu Asn Gly Glu Glu Val Phe			
	420	425	430
Leu Ser Ala Tyr Asp Asp Leu Ser Pro Leu Leu Gly Pro Lys Pro Pro			
	435	440	445
Ile Trp Lys Gly Ser Gly Ser Leu Glu Gly Glu Ala Ala Gly Cys Gly			
	450	455	460
Arg Gln Ala Leu Gly Gln Gly Gly Glu Glu Gln Ala Cys Trp Glu Val			



465                      470                      475                      480  
Gly Glu Asp Lys Gln Ala Glu Pro Gly Gly Arg Leu Asp Ile Arg Glu  
                         485                      490                      495  
Glu Ala Glu Gly Ser Pro Glu Thr Lys Val Glu Ala Gly Lys Ala Ser  
                         500                      505                      510  
Glu Asp Arg Gly Glu Ala Gly Gly Ser Gln Glu Thr Lys Val Arg Leu  
                         515                      520                      525  
Arg Glu Gly Ser Arg Glu Glu Thr Glu Ala Lys Glu Glu Lys Ser Lys  
                         530                      535                      540  
Gly Gln Lys Lys Ala Asp Ser Met Glu Ala Lys Gly Val Glu Glu Pro  
545                      550                      555                      560  
Gly Gly Asp Glu Tyr Thr Asp Glu Lys Glu Lys Glu Ile Glu Arg Glu  
                         565                      570                      575  
Glu Asp Glu Gln Arg Glu Glu Ala Gln Val Glu Ala Gly Arg Asp Leu  
                         580                      585                      590  
Glu Gln Gly Ala Gln Glu Asp Gln Val Ala Glu Glu Lys Trp Glu Val  
                         595                      600                      605  
Val Gln Lys Gln Glu Ala Glu Gly Val Arg Glu Asp Glu Asp Lys Gly  
                         610                      615                      620  
Gln Arg Glu Lys Gly Tyr His Glu Ala Arg Lys Asp Gln Gly Asp Gly  
625                      630                      635                      640  
Glu Asp Ser Arg Ser Pro Glu Ala Ala Thr Glu Gly Gly Ala Gly Glu  
                         645                      650                      655  
Val Ser Lys Glu Arg Glu Ser Gly Asp Gly Glu Ala Glu Gly Asp Gln  
                         660                      665                      670  
Arg Ala Gly Gly Tyr Tyr Leu Glu Glu Asp Thr Leu Ser Glu Gly Ser  
                         675                      680                      685  
Gly Val Ala Ser Leu Glu Val Asp Cys Ala Lys Glu Gly Asn Pro His  
                         690                      695                      700

Ser Ser Glu Met Glu Glu Val Ala Pro Gln Pro Pro Gln Pro Glu Glu  
705 710 715 720  
Met Glu Pro Glu Gly Gln Pro Ser Pro Asp Gly Cys Leu Cys Pro Cys  
725 730 735  
Ser Leu Gly Leu Gly Gly Val Gly Met Arg Leu Ala Ser Thr Leu Val  
740 745 750  
Gln Val Gln Gln Val Arg Ser Val Pro Val Val Pro Pro Lys Pro Gln  
755 760 765  
Phe Ala Lys Met Pro Ser Ala Met Cys Ser Lys Ile His Val Ala Pro  
770 775 780  
Ala Asn Pro Cys Pro Arg Pro Gly Arg Leu Asp Gly Thr Pro Gly Glu  
785 790 795 800  
Arg Ala Trp Glu Ser Arg Ala Ser Arg Ser Ser Trp Arg Asn Gly Gly  
805 810 815  
Ser Leu Ser Phe Asp Ala Ala Val Ala Leu Ala Arg Asp Arg Gln Arg  
820 825 830  
Thr Glu Ala Gln Gly Val Arg Arg Thr Gln Thr Cys Thr Glu Gly Gly  
835 840 845  
Asp Tyr Cys Leu Ile Pro Arg Thr Ser Pro Cys Ser Met Ile Ser Ala  
850 855 860  
His Ser Pro Arg Pro Leu Ser Cys Leu Glu Leu Pro Ser Glu Gly Ala  
865 870 875 880  
Glu Gly Ser Gly Ser Arg Ser Arg Leu Ser Leu Pro Pro Arg Glu Pro  
885 890 895  
Gln Val Pro Asp Pro Leu Leu Ser Ser Gln Arg Arg Ser Tyr Ala Phe  
900 905 910  
Glu Thr Gln Ala Asn Pro Gly Lys Gly Glu Gly Leu  
915 920

&lt;210&gt; 4051

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4051

Met Ile Leu Ser Cys Ile Asn Cys Gln Gly Asp Asn Arg Arg Cys Val

1 5 10 15

Pro Arg Pro Pro Leu Val Ser Arg Leu Glu Glu Ser Pro Gly Trp Cys

20 25 30

Ile Arg Ala Arg Gln Arg Gly Arg Pro Ser Gln Leu His Cys Lys Gln

35 40 45

Phe Gln Leu His Ser Gln Gly Gln Ala Pro Trp Lys Arg Leu Leu Phe

50 55 60

Asn Cys Trp Pro Phe Gln Pro His Cys Ala Asp Ser Ser Phe Ser Leu

65 70 75 80

Gly Tyr Gln Ser Val Pro Leu Gln Phe Thr Ile Val Phe Val Phe Leu

85 90 95

Ser Phe Thr Asn Cys Asp Met Ser Lys Leu Asn Tyr Ala Ile

100 105 110

&lt;210&gt; 4052

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4052

Met His Ala Gly Lys Arg Ser Pro Leu Thr Gln Ser Ile Ser Cys Val  
 1 5 10 15  
 Cys Leu Pro Glu Leu Gly Ala Leu Trp Glu Ile Glu Ser Ala Arg Val  
 20 25 30  
 Asn Leu Arg Val Ser Gly Arg Glu Ala Ser Arg Glu Met Glu Ser Ser  
 35 40 45  
 Pro Arg Pro His Arg Ile Ala Gly Val Lys Arg Phe Leu Lys His Ala  
 50 55 60  
 Gly Lys Trp Ser Leu Arg Trp Phe Leu Ser Pro Arg Trp Ile Leu Gln  
 65 70 75 80  
 Phe Arg Arg Trp Ala Arg Lys Trp Ser Arg Phe Thr Arg Ser Ser Phe  
 85 90 95  
 Gln Val Arg Trp Ala Ala Val Pro Ala Gly Lys Cys Ser Gln His Gln  
 100 105 110  
 Gly Leu Ser Ala Val Ala Thr Ala Ser Pro Gly Val Phe Trp Glu Met  
 115 120 125  
 Glu Phe Asp Val Ser Ser Pro Leu Thr Glu Gly Ala Gly Ser Pro Met  
 130 135 140  
 Ser Ser Lys His Ala Gly Glu  
 145 150

&lt;210&gt; 4053

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4053

Met Arg Ile Pro Leu Pro His Leu Met Ser Ser Tyr Ile Lys Asp Leu

1 5 10 15  
Cys Arg Ser Gly Ile Cys Glu Ser Leu Val Ser Asp Ala Val Leu Phe  
20 25 30  
Ser Leu Thr Pro Val Ile Pro Glu Leu Trp Glu Ala Glu Thr Gly Arg  
35 40 45  
Ser Pro Asp Val Gly Ser Ser Arg Pro Ser Trp Pro Thr Trp Arg Ser  
50 55 60  
Leu Ser Leu Leu Lys Ile Gln Lys Leu Ala Ser Arg Gly Ser Ala Cys  
65 70 75 80  
Leu Trp Ser Gln Leu Leu Gly Ser Leu Arg Gln Glu Asn Cys Leu Asn  
85 90 95  
Leu Gly Gly Gly Gly Cys Ser Glu Pro Lys Leu Cys Arg Cys Thr Pro  
100 105 110  
Ala Trp Val Thr Val Arg Ile Cys Leu Lys Lys Lys Lys Lys Lys Asn  
115 120 125  
Trp Leu Gly Ala Val Ala Leu Ala Ser Asn Pro Asp Thr Leu Arg Gly  
130 135 140  
Leu Val Trp Arg Ile Ala  
145 150

&lt;210&gt; 4054

&lt;211&gt; 1260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4054

Met Gly Val Tyr Pro Thr Asp Leu Thr Leu Gln Leu Leu Ala Val Arg  
1 5 10 15

Arg Lys Ser Arg Leu Arg Asp Pro Gly Leu Gln Gln Thr Leu Arg Gly  
                   20                                  25                                  30  
 Gln Leu Arg Leu Leu Glu Asn Asp Ser Arg Glu Met Ala Arg Val Leu  
                   35                                  40                                  45  
 Gly Glu Leu Ser Ala Arg Leu Leu Ser Ile His Ser Asp Gln Asp Arg  
                   50                                  55                                  60  
 Ile Val Val Thr Phe Lys Thr Phe Glu Glu Ile Trp Lys Phe Ser Thr  
                   65                                  70                                  75                                  80  
 Tyr His Ala Leu Gly Phe Thr His His Cys Leu Ala Asn Leu Leu Met  
                                   85                                  90                                  95  
 Asp Gln Ala Phe Trp Leu Leu Leu Pro Ser Glu Glu Glu Glu Thr Ala  
                   100                                  105                                  110  
 Ile Gln Val His Val Asp Glu Asn Ala Leu Arg Leu Thr His Glu Ser  
                   115                                  120                                  125  
 Leu Leu Ile Gln Glu Gly Pro Phe Phe Val Leu Cys Pro Asp His His  
                   130                                  135                                  140  
 Val Arg Val Met Thr Gly Pro Arg Asp Ala Gly Asn Gly Pro Gln Ala  
                   145                                  150                                  155                                  160  
 Leu Arg Gln Ala Ser Gly Ala Pro Gln Gly Glu Ala Ala Pro Glu Thr  
                                   165                                  170                                  175  
 Asp Ser Ser Pro Pro Ser Pro Ser Val Ser Ser Glu Glu Val Ala Val  
                   180                                  185                                  190  
 Ala Ala Ala Pro Glu Pro Leu Ile Pro Phe His Gln Trp Ala Leu Arg  
                   195                                  200                                  205  
 Ile Pro Gln Asp Pro Ile Asp Asp Ala Met Gly Gly Pro Val Met Pro  
                   210                                  215                                  220  
 Gly Asn Pro Leu Met Ala Val Gly Leu Ala Ser Ala Leu Ala Asp Phe  
                   225                                  230                                  235                                  240  
 Gln Gly Ser Gly Pro Glu Glu Met Thr Phe Arg Gly Gly Asp Leu Ile

245	250	255
Glu Ile Leu Gly Ala Gln Val Pro Ser Leu Pro Trp Cys Val Gly Arg		
260	265	270
His Ala Ala Ser Gly Arg Val Gly Phe Val Arg Ser Ser Leu Ile Ser		
275	280	285
Met Gln Gly Pro Val Ser Glu Leu Glu Ser Ala Ile Phe Leu Asn Glu		
290	295	300
Glu Glu Lys Ser Phe Phe Ser Glu Gly Cys Phe Ser Glu Glu Asp Ala		
305	310	315
Arg Gln Leu Leu Arg Arg Met Ser Gly Thr Asp Val Cys Ser Val Tyr		
325	330	335
Ser Leu Asp Ser Val Glu Glu Ala Glu Thr Glu Gln Pro Gln Glu Lys		
340	345	350
Glu Ile Pro Pro Pro Cys Leu Ser Pro Glu Pro Gln Glu Thr Leu Gln		
355	360	365
Lys Val Lys Asn Val Leu Glu Gln Cys Lys Thr Cys Pro Gly Cys Pro		
370	375	380
Gln Glu Pro Ala Ser Trp Gly Leu Cys Ala Ala Ser Ser Asp Val Ser		
385	390	395
Leu Gln Asp Pro Glu Glu Pro Ser Phe Cys Leu Glu Ala Glu Asp Asp		
405	410	415
Trp Glu Asp Pro Glu Ala Leu Ser Ser Leu Leu Leu Phe Leu Asn Ala		
420	425	430
Pro Gly Tyr Lys Ala Ser Phe Arg Gly Leu Tyr Asp Val Ala Leu Pro		
435	440	445
Trp Leu Ser Ser Val Phe Arg Ser Phe Ser Asp Glu Glu Glu Leu Thr		
450	455	460
Gly Arg Leu Ala Gln Ala Arg Gly Ala Ala Lys Lys Ala Gly Leu Leu		
465	470	475
		480

Met Ala Leu Ala Arg Leu Cys Phe Leu Leu Gly Arg Leu Cys Ser Arg  
485 490 495  
Arg Leu Lys Leu Ser Gln Ala Arg Val Tyr Phe Glu Glu Ala Leu Gly  
500 505 510  
Ala Leu Glu Gly Ser Phe Gly Asp Leu Phe Leu Val Val Ala Val Tyr  
515 520 525  
Ala Asn Leu Ala Ser Ile Tyr Arg Lys Gln Lys Asn Arg Glu Lys Cys  
530 535 540  
Ala Gln Val Val Pro Lys Ala Met Ala Leu Leu Leu Gly Thr Pro Asp  
545 550 555 560  
His Ile Cys Ser Thr Glu Ala Glu Gly Glu Leu Leu Gln Leu Ala Leu  
565 570 575  
Arg Arg Ala Val Gly Gly Gln Ser Leu Gln Ala Glu Ala Arg Ala Cys  
580 585 590  
Phe Leu Leu Ala Arg His His Val His Leu Lys Gln Pro Glu Glu Ala  
595 600 605  
Leu Pro Phe Leu Glu Arg Leu Leu Leu Leu His Arg Asp Ser Gly Ala  
610 615 620  
Pro Glu Ala Ala Trp Leu Ser Asp Cys Tyr Leu Leu Leu Ala Asp Ile  
625 630 635 640  
Tyr Ser Arg Lys Cys Leu Pro His Leu Val Leu Ser Cys Val Lys Val  
645 650 655  
Ala Ser Leu Arg Thr Arg Gly Ser Leu Ala Gly Ser Leu Arg Ser Val  
660 665 670  
Asn Leu Val Leu Gln Asn Ala Pro Gln Pro His Ser Leu Pro Ala Gln  
675 680 685  
Thr Ser His Tyr Leu Arg Gln Ala Leu Ala Ser Leu Thr Pro Gly Thr  
690 695 700  
Gly Gln Ala Leu Cys Gly Pro Leu Tyr Thr Ser Leu Ala Gln Leu Tyr



705                      710                      715                      720  
Ser His His Gly Cys His Gly Pro Ala Ile Thr Phe Met Thr Gln Ala  
                            725                      730                      735  
Val Glu Ala Ser Ala Ile Ala Gly Val Arg Ala Ile Val Asp His Leu  
                            740                      745                      750  
Val Ala Leu Ala Trp Leu His Val Leu His Gly Gln Ser Pro Val Ala  
                            755                      760                      765  
Leu Asp Ile Leu Gln Ser Val Arg Asp Ala Val Val Ala Ser Glu Asp  
                            770                      775                      780  
Gln Glu Gly Val Ile Ala Asn Met Val Ala Val Ala Leu Lys Arg Thr  
785                      790                      795                      800  
Gly Arg Thr Arg Gln Ala Ala Glu Ser Tyr Tyr Arg Ala Leu Arg Val  
                            805                      810                      815  
Ala Arg Asp Leu Gly Gln Gln Arg Asn Gln Ala Val Gly Leu Ala Asn  
                            820                      825                      830  
Phe Gly Ala Leu Cys Leu His Ala Gly Ala Ser Arg Leu Ala Gln His  
                            835                      840                      845  
Tyr Leu Leu Glu Ala Val Arg Leu Phe Ser Arg Leu Pro Leu Gly Glu  
                            850                      855                      860  
Cys Gly Arg Asp Phe Thr His Val Leu Leu Gln Leu Gly His Leu Cys  
865                      870                      875                      880  
Thr Arg Gln Gly Pro Ala Gln Gln Gly Lys Gly Tyr Tyr Glu Trp Ala  
                            885                      890                      895  
Leu Leu Val Ala Val Glu Met Gly His Val Glu Ser Gln Leu Arg Ala  
                            900                      905                      910  
Val Gln Arg Leu Cys His Phe Tyr Ser Ala Val Met Pro Ser Glu Ala  
                            915                      920                      925  
Gln Cys Val Ile Tyr His Glu Leu Gln Leu Ser Leu Ala Cys Lys Val  
                            930                      935                      940

Ala Asp Lys Val Leu Glu Gly Gln Leu Leu Glu Thr Ile Ser Gln Leu  
945 950 955 960  
Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys Ser Ala Leu Asp Tyr  
965 970 975  
Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu Gln Lys Lys Glu Lys  
980 985 990  
Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile Tyr Tyr Ile Leu Arg  
995 1000 1005  
Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val Ala Gln Asn Val Ala  
1010 1015 1020  
Leu Tyr Thr Gly Asp Pro Asn Leu Gly Leu Glu Leu Phe Glu Ala Ala  
1025 1030 1035 1040  
Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg Glu Lys Ala Val Ser  
1045 1050 1055  
Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val Thr Thr Gly Asn Arg  
1060 1065 1070  
Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val Ala Leu Leu Ala Thr  
1075 1080 1085  
Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala His Met Ala Leu Ala  
1090 1095 1100  
Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu Arg Val Ala Tyr His  
1105 1110 1115 1120  
Arg Leu Ala Ala Leu Gln His Arg Leu Gly His Gly Glu Leu Ala Glu  
1125 1130 1135  
His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn Ser Pro Leu Glu Phe  
1140 1145 1150  
Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr Leu Val Leu Gly Asp  
1155 1160 1165  
Ile Ile Phe Tyr Asp Leu Lys Asp Pro Phe Asp Ala Ala Gly Tyr Tyr

1170	1175	1180
Gln Leu Ala Leu Ala Ala Val Asp Leu Gly Asn Lys Lys Ala Gln		
1185	1190	1195
1200		
Leu Lys Ile Tyr Thr Arg Leu Ala Thr Ile Tyr His Asn Phe Leu Leu		
1205	1210	1215
Asp Arg Glu Lys Ser Leu Phe Phe Tyr Gln Lys Ala Arg Thr Phe Ala		
1220	1225	1230
Thr Glu Leu Asn Val Arg Arg Val Asn Leu Pro Pro Leu Pro Leu Cys		
1235	1240	1245
Gly Trp Ala Pro Trp Leu Ala Pro Ser His Pro Arg		
1250	1255	1260

&lt;210&gt; 4055

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4055

Met Gly Phe Ala Glu Ala Phe Leu Glu His Leu Trp Lys Asn Leu Gln
1 5 10 15
Asp Pro Ser Asn Pro Ala Ile Ile Arg Gln Ala Ala Gly Asn Tyr Ile
20 25 30
Gly Ser Phe Leu Ala Arg Ala Lys Phe Ile Ser Leu Ile Thr Val Lys
35 40 45
Pro Cys Leu Asp Leu Leu Val Asn Trp Leu His Ile Tyr Leu Asn Asn
50 55 60
Gln Asp Ser Gly Thr Lys Ala Phe Cys Asp Val Ala Leu His Gly Pro
65 70 75 80

Phe Tyr Ser Ala Cys Gln Ala Val Phe Tyr Thr Phe Val Phe Arg His  
                     85                    90                    95  
 Lys Gln Leu Leu Ser Gly Asn Leu Lys Glu Gly Leu Gln Tyr Pro Gln  
                     100                    105                    110  
 Ser Leu Asn Phe Glu Arg Ile Val Met Ser Gln Leu Asn Pro Leu Lys  
                     115                    120                    125  
 Ile Cys Leu Pro Ser Val Val Asn Phe Phe Ala Ala Ile Thr Lys Met  
                     130                    135                    140  
 Lys Thr Cys Gly Tyr Gly Trp Trp  
 145                    150

<210> 4056

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4056

Met Leu Leu Cys Trp Leu Ser Leu Pro His Arg Lys Val Phe Ser Phe  
           1                    5                    10                    15  
 Leu Phe Phe Ser Phe Phe Leu Phe Phe Phe Phe Phe Phe Leu Arg Arg  
                     20                    25                    30  
 Thr Leu Pro Leu Leu Thr Arg Leu Glu Cys Ser Gly Thr Ile Ser Ala  
                     35                    40                    45  
 His His Asn Leu Arg Leu Leu Gly Ser Ser Asp Ser Pro Ala Leu Ala  
                     50                    55                    60  
 Ser Arg Val Ala Gly Thr Met Gly Ala His Tyr His Ala Trp Leu Ile  
                     65                    70                    75                    80  
 Phe Val Phe Leu Val Glu Thr Lys Phe His Tyr Val Gly Lys Ala Gly

85 90 95  
 Leu Lys Leu Leu Thr Ser  
 100

<210> 4057

<211> 143

<212> PRT

<213> Homo sapiens

<400> 4057

Met Pro Val Ile Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser Leu  
 1 5 10 15  
 Glu Val Arg Gly Ser Gly Pro Ala Trp Pro Thr Trp Trp Asn Pro Val  
 20 25 30  
 Ser Thr Lys Asn Thr Lys Val Ser Trp Met Trp Trp Arg Val Pro Val  
 35 40 45  
 Val Pro Ala Ala Arg Glu Ala Glu Ala Gly Glu Ala Leu Glu Pro Gly  
 50 55 60  
 Arg Arg Arg Leu Gln Trp Ala Glu Val Val Ser Leu His Ser Ser Leu  
 65 70 75 80  
 Gly Val Thr Val Arg Ile Cys Leu Lys Lys Arg Lys Lys Lys Lys Lys  
 85 90 95  
 Asn Pro Arg Lys Asn Lys Glu Thr Gln Met Leu Gly Val Gly Ile Asn  
 100 105 110  
 Tyr Met Thr Pro Tyr Arg Cys Gln Pro Leu His Pro Ser Leu Phe Gln  
 115 120 125  
 Thr Pro Cys Arg Val Ser Tyr Val Leu Arg Leu Leu Lys Asn Lys  
 130 135 140

&lt;210&gt; 4058

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4058

Met Arg Lys His Ile Lys Glu Arg Glu Leu Ser Leu Met Glu Gln Ile

1

5

10

15

Lys Glu Phe Ile Leu Glu Arg Asn Thr Met Asn Val Pro Thr Val Gly

20

25

30

Lys Pro Phe Ser Gly Arg His Ser Leu Leu Ser Ile Arg Glu Phe Thr

35

40

45

Leu Gly Arg Ser Pro Met Asn Val Met Asn Val Gly Glu Pro Ser Glu

50

55

60

Lys Lys Pro Thr Cys Met Ile Ile Arg Glu Phe Ile Leu Glu Lys Asn

65

70

75

80

Pro Ile Leu Val Arg Asn Val Gly Lys Thr Ser Ala Glu Val Gln Leu

85

90

95

Leu Leu Asn Thr Arg Glu Phe Ile Leu Glu Ile Asn Ser Arg Asn Arg

100

105

110

Glu Ile Lys Glu Phe Ala Glu Cys Phe Ser

115

120

&lt;210&gt; 4059

&lt;211&gt; 132

&lt;212&gt; PRT

<213> Homo sapiens

<400> 4059

Met Glu Ile Ser Ala Pro Ser Gln Gln Arg Gln Gln Ile Ala Glu Ile  
1 5 10 15  
Glu Lys Gln Thr Lys Glu Gln Ser Gln Leu Thr Ala Thr Gln Thr Arg  
20 25 30  
Thr Val Asn Lys His Gly Asp Glu Ile Ile Thr Ser Thr Thr Ser Asn  
35 40 45  
Tyr Glu Thr Gln Thr Phe Ser Ser Lys Thr Glu Trp Arg Val Arg Ala  
50 55 60  
Ile Ser Ala Ala Asn Leu His Leu Arg Thr Asn His Ile Tyr Val Ser  
65 70 75 80  
Ser Asp Asp Ile Lys Glu Thr Gly Tyr Thr Tyr Ile Leu Pro Lys Asn  
85 90 95  
Val Leu Lys Lys Phe Ile Cys Ile Ser Asp Leu Arg Ala Gln Val Ser  
100 105 110  
Lys Trp Thr Gln Leu Gly His Ser Val Cys Pro Thr His Phe Val Pro  
115 120 125  
Lys Thr Gln Thr  
130

<210> 4060

<211> 271

<212> PRT

<213> Homo sapiens

<400> 4060

Met Ala Ala Val Glu Lys Arg Arg Gln Ala Val Pro Pro Pro Ala Gly  
 1 5 10 15  
 Phe Thr Asp Ser Gly Arg Gln Ser Val Ser Arg Ala Ala Gly Ala Ala  
 20 25 30  
 Glu Ser Glu Glu Asp Phe Leu Arg Gln Val Gly Val Thr Glu Met Leu  
 35 40 45  
 Arg Ala Ala Leu Leu Lys Val Leu Glu Ala Arg Pro Glu Glu Pro Ile  
 50 55 60  
 Ala Phe Leu Ala His Tyr Phe Glu Asn Met Gly Leu Arg Ser Pro Val  
 65 70 75 80  
 Asn Gly Gly Ala Gly Glu Pro Pro Gly Gln Leu Leu Leu Gln Gln Gln  
 85 90 95  
 Arg Leu Gly Arg Ala Leu Trp His Leu Arg Leu Ala His His Ser Gln  
 100 105 110  
 Arg Ala Ala Phe Asn Asn Asn Val Ser Val Ala Tyr Glu Cys Leu Ser  
 115 120 125  
 Ala Gly Gly Arg Arg Lys Arg Pro Gly Leu Asp Gly Arg Thr Tyr Ser  
 130 135 140  
 Glu Leu Leu Arg Arg Ile Cys Arg Asp Gly Gln Ala Pro Glu Glu Val  
 145 150 155 160  
 Val Ala Pro Leu Leu Arg Lys Val Gln Cys Arg Asp His Glu Ala Val  
 165 170 175  
 Pro Leu Ser Val Phe Arg Ala Gly Thr Leu Thr Cys Phe Val Leu Leu  
 180 185 190  
 Glu Phe Val Ala Arg Ala Gly Ala Leu Phe Gln Leu Leu Glu Asp Ser  
 195 200 205  
 Ala Ala Ala Val Ala Asp Arg Arg Val Gly Gln Ala Val Leu Asp Thr  
 210 215 220  
 Leu Glu Gly Ala Leu Gln Ala Ser Asp Ala Ala Ala Pro Ala Arg Phe



225                      230                      235                      240  
Leu Glu Ala Gly Ser Arg Leu Ala Pro Met Thr Arg Glu Glu Phe Leu  
                         245                      250                      255  
Glu Arg Ala Ala Ala Leu Phe Ile Ala Lys Val Lys Pro Val Gly  
                         260                      265                      270

<210> 4061

<211> 167

<212> PRT

<213> Homo sapiens

<400> 4061

Met Glu Ala Pro His Pro Phe His Ser Gly Val Ala Ala Thr His His  
1                      5                      10                      15  
Lys Ser Thr Phe Arg Ser Glu Leu Phe Arg Gly Gly Ser Arg Gln Phe  
                         20                      25                      30  
Val Ser Pro Gly Arg Pro Ala Gly Phe Pro Ala Cys Cys Gly Leu Ser  
                         35                      40                      45  
Val Gly Pro Thr Gly Ala Gly Glu Gly Trp Arg Gly Leu Ala Gly Thr  
                         50                      55                      60  
Arg Gly Ala Glu Pro Ala Leu Ala Lys Pro Ser Ser Glu Glu Arg Arg  
65                      70                      75                      80  
Leu Trp Leu Arg Ala Leu Arg Ser Gln Val Ala Gly Ser Ser Arg Gly  
                         85                      90                      95  
Ser Gly Pro Val Pro Ser Ala Asp Pro Gly Ser Arg Ala Leu Val Val  
                         100                      105                      110  
Ser Ala Gly Gly Lys Val Thr Arg Ser Gly Arg Arg Arg Arg Val Arg  
                         115                      120                      125

Gly Ala Glu Arg Gly Lys Glu Arg Val Gln Arg Ala Gly Glu Ser Phe  
 130 135 140  
 Arg Lys Ser Gly Arg Gly Arg Tyr Leu Pro Val Pro Ser Pro Arg Ala  
 145 150 155 160  
 Thr Arg Gln Ile Gly Glu Gly  
 165

<210> 4062

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4062

Met Phe Phe Cys His Gly Phe Ser Trp Ser Leu His Leu Gly Pro Leu  
 1 5 10 15  
 Thr Ser His Asn Thr Asp Gln Arg Gly Glu Thr Pro Ser Leu Leu Lys  
 20 25 30  
 Val Gln Gly Ser Ala Glu Cys Ala Gly Ala Ser Leu Glu Ser Gln Leu  
 35 40 45  
 Leu Gly Arg Leu Arg Arg Glu Asn Arg Leu Asn Pro Gly Gly Trp Gly  
 50 55 60  
 Cys Ser Glu Leu Arg Ser Cys His Cys Thr Pro Ala Trp Arg Gln Ser  
 65 70 75 80  
 Lys Thr Pro Phe Gln Thr Asn Lys Gln Met Asn Ile Ala Ile Ile Leu  
 85 90 95  
 Lys Tyr Tyr Val Arg Ile Lys Tyr Val Ile Phe Arg Phe Leu Leu Met  
 100 105 110  
 Tyr Asn Met His Thr Glu Ile His Pro Gln

115

120

&lt;210&gt; 4063

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4063

Met	Pro	Val	Phe	Ser	Ala	Ser	Gln	Val	Ala	Gly	Ile	Thr	Gly	Val	His
1				5					10					15	
His	His	Ala	Gly	Leu	Asn	Phe	Phe	Val	Phe	Leu	Val	Glu	Thr	Gly	Phe
				20				25						30	
Leu	Tyr	Val	Gly	Gln	Ala	Asp	Leu	Glu	Leu	Pro	Thr	Ser	Gly	Asp	Pro
				35				40						45	
Pro	Ala	Ser	Ala	Ser	Gln	Ser	Ala	Gly	Ile	Thr	Gly	Val	Ser	His	Cys
				50				55						60	
Thr	Arg	Leu	Ser	Leu	Val	Leu	Arg	His	Leu	Leu	Asp	Thr	Pro	Ser	Leu
				65				70						75	
Arg	Ala	Glu	Arg	Ser	Pro	Arg	Pro	Val	Pro	Arg	Asp	Lys	Ala	Gln	Gly
				85				90						95	
Arg	Val	Tyr	Leu	Gly	Ser	Arg	Gly	Gly	Glu	Gly	Val	Glu	Lys	Ala	Glu
				100				105						110	
Leu	Glu	Ser	Ile	Thr	Leu	Pro	Thr	Asn	His	Gln	Thr	Ala	Gly	Thr	Leu
				115				120						125	
Gln	Pro	Asn	Ala	Gly	Arg	Arg	Thr	Trp	Arg	Val	Ser	Leu	Cys		
				130				135						140	

&lt;210&gt; 4064

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4064

Met	Phe	Ala	Pro	Leu	His	Ser	Gly	Leu	Asp	Asp	Arg	Val	Arg	Leu	Cys
1				5				10					15		
Leu	Lys	Lys	Lys	Lys	Ile	Ile	Ile	Thr	Asn	Leu	Ala	Asn	Gly	Arg	Leu
				20				25					30		
Phe	Lys	Leu	Thr	Cys	Val	Phe	Leu	Thr	His	Pro	His	His	Phe	Phe	Thr
				35				40					45		
Arg	Phe	Leu	Ala	Phe	Trp	His	Lys	Ile	Val	Phe	Phe	Leu	Cys	Ser	Asn
				50				55					60		
Pro	Gly	Ile	Ser	His	Phe	Pro	Arg	Glu	Leu	Trp	Ile	Leu	Leu	Val	Glu
				65				70					75		80
Ser	Leu	Asn	Leu	Gly	Ile	Leu	Gln	Asp	Leu	Asp	Ala	Arg	Cys	Ala	His
				85				90					95		
Cys	His	Trp	Gly	Ala	Thr	Ala	Leu	His	Ala	Leu	Ser	Gly	His	Ser	Gln
				100				105					110		
Gly	Met	Cys	Val	Cys	Ser	Phe	Leu	Cys	Gly	Met	Lys	Thr	Met	Cys	Ser
				115				120					125		
Trp	Cys	Tyr	Leu	Met	Thr	Glu	Val	Ile	Phe	Ile	Phe	Ser	Leu	Ser	Met
				130				135					140		
Phe	Val	Ala	Leu	Leu	Ser	Asp	Gly	Glu	Lys	Pro	Gly	Phe	Tyr	Tyr	Leu
				145				150					155		160

&lt;210&gt; 4065

&lt;211&gt; 409

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4065

Met Glu Glu Ser Trp Glu Ala Ala Pro Gly Gly Gln Ala Gly Ala Glu

1 5 10 15

Leu Pro Met Glu Pro Val Gly Ser Leu Val Pro Thr Leu Glu Gln Pro

20 25 30

Gln Val Pro Ala Lys Val Arg Gln Pro Glu Gly Pro Glu Ser Ser Pro

35 40 45

Ser Pro Ala Gly Ala Val Glu Lys Ala Ala Gly Ala Gly Leu Glu Pro

50 55 60

Ser Ser Lys Lys Lys Pro Pro Ser Pro Arg Pro Gly Ser Pro Arg Val

65 70 75 80

Pro Pro Leu Ser Leu Gly Tyr Gly Val Cys Pro Glu Pro Pro Ser Pro

85 90 95

Gly Pro Ala Leu Val Lys Leu Pro Arg Asn Gly Glu Ala Pro Gly Ala

100 105 110

Glu Pro Ala Pro Ser Ala Trp Ala Pro Met Glu Leu Gln Val Asp Val

115 120 125

Arg Val Lys Pro Val Gly Ala Ala Gly Gly Ser Ser Thr Pro Ser Pro

130 135 140

Arg Pro Ser Thr Arg Phe Leu Lys Val Pro Val Pro Glu Ser Pro Ala

145 150 155 160

Phe Ser Arg His Ala Asp Pro Ala His Gln Leu Leu Leu Arg Ala Pro

165 170 175

Ser Gln Gly Gly Thr Trp Gly Arg Arg Ser Pro Leu Ala Ala Ala Arg

180 185 190

Thr Glu Ser Gly Cys Asp Ala Glu Gly Arg Ala Ser Pro Ala Glu Gly  
195 200 205

Ser Ala Gly Ser Pro Gly Ser Pro Thr Cys Cys Arg Cys Lys Glu Leu  
210 215 220

Gly Leu Glu Lys Glu Asp Ala Ala Leu Leu Pro Arg Ala Gly Leu Asp  
225 230 235 240

Gly Asp Glu Lys Leu Pro Arg Ala Val Thr Leu Thr Gly Leu Pro Met  
245 250 255

Tyr Val Lys Ser Leu Tyr Trp Ala Leu Ala Phe Met Ala Val Leu Leu  
260 265 270

Ala Val Ser Gly Val Val Ile Val Val Leu Ala Ser Arg Ala Gly Ala  
275 280 285

Arg Cys Gln Gln Cys Pro Pro Gly Trp Val Leu Ser Glu Glu His Cys  
290 295 300

Tyr Tyr Phe Ser Ala Glu Ala Gln Ala Trp Glu Ala Ser Gln Ala Phe  
305 310 315 320

Cys Ser Ala Tyr His Ala Thr Leu Pro Leu Leu Ser His Thr Gln Asp  
325 330 335

Phe Leu Gly Arg Tyr Pro Val Ser Arg His Ser Trp Val Gly Ala Trp  
340 345 350

Arg Gly Pro Gln Gly Trp His Trp Ile Asp Glu Ala Pro Leu Pro Pro  
355 360 365

Gln Leu Leu Pro Glu Asp Gly Glu Asp Asn Leu Asp Ile Asn Cys Gly  
370 375 380

Ala Leu Glu Glu Gly Thr Leu Val Ala Ala Asn Cys Ser Thr Pro Arg  
385 390 395 400

Pro Trp Val Cys Ala Lys Gly Thr Gln  
405

&lt;210&gt; 4066

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4066

Met Arg Cys Leu Arg Leu Arg Gln Ser Ser Leu Glu Pro Val Ala Phe

1 5 10 15

Arg Leu Pro Arg Val Arg Lys Glu Phe Phe Gln Asp Asp Val Phe Pro

20 25 30

Asp Thr Ala Val Ile Trp Glu Pro Val Leu Ser Ala Glu Ala Trp Leu

35 40 45

Gln Gly Ala Asn Gly Gln Pro Trp Leu Leu Ser Leu Gln Pro Pro Asp

50 55 60

Met Ser Pro Val Ser Gln Ala Pro Arg Glu Ala Pro Ala Arg Arg Ala

65 70 75 80

Pro Ser Ser Ala Gln Tyr Leu Glu Glu Lys Ser Asp Gln Gln Lys Lys

85 90 95

Glu Glu Val Gly Met Gly Glu Ser Ser Cys Ala Glu Val Thr Glu Ser

100 105 110

Trp Leu His Leu Ala Thr Ala Pro

115 120

&lt;210&gt; 4067

&lt;211&gt; 507

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4067

Met Ala Glu Leu Asp Gln Leu Pro Asp Glu Ser Ser Ser Ala Lys Ala  
 1 5 10 15  
 Leu Val Ser Leu Lys Glu Gly Ser Leu Ser Asn Thr Trp Asn Glu Lys  
 20 25 30  
 Tyr Ser Ser Leu Gln Lys Thr Pro Val Trp Lys Gly Arg Asn Thr Ser  
 35 40 45  
 Ser Ala Val Glu Met Lys Phe Thr Ala Thr Met Ser Thr Pro Asp Lys  
 50 55 60  
 Lys Ala Ser Gln Lys Ile Gly Phe Arg Leu Arg Asn Leu Leu Lys Leu  
 65 70 75 80  
 Pro Lys Ala His Lys Trp Cys Ile Tyr Glu Trp Phe Tyr Ser Asn Ile  
 85 90 95  
 Asp Lys Pro Leu Phe Glu Gly Asp Asn Asp Phe Cys Val Cys Leu Lys  
 100 105 110  
 Glu Ser Phe Pro Asn Leu Lys Thr Arg Lys Leu Thr Arg Val Glu Trp  
 115 120 125  
 Gly Lys Ile Arg Arg Leu Met Gly Lys Pro Arg Arg Cys Ser Ser Ala  
 130 135 140  
 Phe Phe Glu Glu Glu Arg Ser Ala Leu Lys Gln Lys Arg Gln Lys Ile  
 145 150 155 160  
 Arg Leu Leu Gln Gln Arg Lys Val Ala Asp Val Ser Gln Phe Lys Asp  
 165 170 175  
 Leu Pro Asp Glu Ile Pro Leu Pro Leu Val Ile Gly Thr Lys Val Thr  
 180 185 190  
 Ala Arg Leu Arg Gly Val His Asp Gly Leu Phe Thr Gly Gln Ile Asp  
 195 200 205  
 Ala Val Asp Thr Leu Asn Ala Thr Tyr Arg Val Thr Phe Asp Arg Thr



210 215 220  
Gly Leu Gly Thr His Thr Ile Pro Asp Tyr Glu Val Leu Ser Asn Glu  
225 230 235 240  
Pro His Glu Thr Met Pro Ile Ala Ala Phe Gly Gln Lys Gln Arg Pro  
245 250 255  
Ser Arg Phe Phe Met Thr Pro Pro Arg Leu His Tyr Thr Pro Pro Leu  
260 265 270  
Gln Ser Pro Ile Ile Asp Asn Asp Pro Leu Leu Gly Gln Ser Pro Trp  
275 280 285  
Arg Ser Lys Ile Ser Gly Ser Asp Thr Glu Thr Leu Gly Gly Phe Pro  
290 295 300  
Val Glu Phe Leu Ile Gln Val Thr Arg Leu Ser Lys Ile Leu Met Ile  
305 310 315 320  
Lys Lys Glu His Ile Lys Lys Leu Arg Glu Met Asn Thr Glu Ala Glu  
325 330 335  
Lys Leu Lys Ser Tyr Ser Met Pro Ile Ser Ile Glu Phe Gln Arg Arg  
340 345 350  
Tyr Ala Thr Ile Val Leu Glu Leu Glu Gln Leu Asn Lys Asp Leu Asn  
355 360 365  
Lys Val Leu His Lys Val Gln Gln Tyr Cys Tyr Glu Leu Ala Pro Asp  
370 375 380  
Gln Gly Leu Gln Pro Ala Asp Gln Pro Thr Asp Met Arg Arg Arg Cys  
385 390 395 400  
Glu Glu Glu Ala Gln Glu Ile Val Arg His Ala Asn Ser Ser Thr Gly  
405 410 415  
Gln Pro Cys Val Glu Asn Glu Asn Leu Thr Asp Leu Ile Ser Arg Leu  
420 425 430  
Thr Ala Ile Leu Leu Gln Ile Lys Cys Leu Ala Glu Gly Gly Asp Leu  
435 440 445

Asn Ser Phe Glu Phe Lys Ser Leu Thr Asp Ser Leu Asn Asp Ile Lys  
 450 455 460  
 Ser Thr Ile Asp Ala Ser Asn Ile Ser Cys Phe Gln Asn Asn Val Glu  
 465 470 475 480  
 Ile His Val Ala His Ile Gln Ser Gly Leu Ser Gln Met Gly Asn Leu  
 485 490 495  
 His Ala Phe Ala Ala Asn Asn Thr Asn Arg Asp  
 500 505

<210> 4068

<211> 601

<212> PRT

<213> Homo sapiens

<400> 4068

Met Ala Ala Leu Thr Pro Arg Lys Arg Lys Gln Asp Ser Leu Lys Cys  
 1 5 10 15  
 Asp Ser Leu Leu His Phe Thr Glu Asn Leu Phe Pro Ser Pro Asn Lys  
 20 25 30  
 Lys His Cys Phe Tyr Gln Asn Ser Asp Lys Asn Glu Glu Asn Leu His  
 35 40 45  
 Cys Ser Gln Gln Glu His Phe Val Leu Ser Ala Leu Lys Thr Thr Glu  
 50 55 60  
 Ile Asn Arg Leu Pro Ser Ala Asn Gln Gly Ser Pro Phe Lys Ser Ala  
 65 70 75 80  
 Leu Ser Thr Val Ser Phe Tyr Asn Gln Asn Lys Trp Tyr Leu Asn Pro  
 85 90 95  
 Leu Glu Arg Lys Leu Ile Lys Glu Ser Arg Ser Thr Cys Leu Lys Thr

100 105 110  
Asn Asp Glu Asp Lys Ser Phe Pro Ile Val Thr Glu Lys Met Gln Gly  
115 120 125  
Lys Pro Val Cys Ser Lys Lys Asn Asn Lys Lys Pro Gln Lys Ser Leu  
130 135 140  
Thr Ala Lys Tyr Gln Pro Lys Tyr Arg His Ile Lys Pro Val Ser Arg  
145 150 155 160  
Asn Ser Arg Asn Ser Lys Gln Asn Arg Val Ile Tyr Lys Pro Ile Val  
165 170 175  
Glu Lys Glu Asn Asn Cys His Ser Ala Glu Asn Asn Ser Asn Ala Pro  
180 185 190  
Arg Val Leu Ser Gln Lys Ile Lys Pro Gln Val Thr Leu Gln Gly Gly  
195 200 205  
Ala Ala Phe Phe Val Arg Lys Lys Ser Ser Leu Arg Lys Ser Ser Leu  
210 215 220  
Glu Asn Glu Pro Ser Leu Gly Arg Thr Gln Lys Ser Lys Ser Glu Val  
225 230 235 240  
Ile Glu Asp Ser Asp Val Glu Thr Val Ser Glu Lys Lys Thr Phe Ala  
245 250 255  
Thr Arg Gln Val Pro Lys Cys Leu Val Leu Glu Glu Lys Leu Lys Ile  
260 265 270  
Gly Leu Leu Ser Ala Ser Ser Lys Asn Lys Glu Lys Leu Ile Lys Asp  
275 280 285  
Ser Ser Asp Asp Arg Val Ser Ser Lys Glu His Lys Val Asp Lys Asn  
290 295 300  
Glu Ala Phe Ser Ser Glu Asp Ser Leu Gly Glu Asn Lys Thr Ile Ser  
305 310 315 320  
Pro Lys Ser Thr Val Tyr Pro Ile Phe Ser Ala Ser Ser Val Asn Ser  
325 330 335

Lys Arg Ser Leu Gly Glu Glu Gln Phe Ser Val Gly Ser Val Asn Phe  
340 345 350  
Met Lys Gln Thr Asn Ile Gln Lys Asn Thr Asn Thr Arg Asp Thr Ser  
355 360 365  
Lys Lys Thr Lys Asp Gln Leu Ile Ile Asp Ala Gly Gln Lys His Phe  
370 375 380  
Gly Ala Thr Val Cys Lys Ser Cys Gly Met Ile Tyr Thr Ala Ser Asn  
385 390 395 400  
Pro Glu Asp Glu Met Gln His Val Gln His His His Arg Phe Leu Glu  
405 410 415  
Gly Ile Lys Tyr Val Gly Trp Lys Lys Glu Arg Val Val Ala Glu Phe  
420 425 430  
Trp Asp Gly Lys Ile Val Leu Val Leu Pro His Asp Pro Ser Phe Ala  
435 440 445  
Ile Lys Lys Val Glu Asp Val Gln Glu Leu Val Asp Asn Glu Leu Gly  
450 455 460  
Phe Gln Gln Val Val Pro Lys Cys Pro Asn Lys Ile Lys Thr Phe Leu  
465 470 475 480  
Phe Ile Ser Asp Glu Lys Arg Val Val Gly Cys Leu Ile Ala Glu Pro  
485 490 495  
Ile Lys Gln Ala Phe Arg Val Leu Ser Glu Pro Ile Gly Pro Glu Ser  
500 505 510  
Pro Ser Ser Thr Glu Cys Pro Arg Ala Trp Gln Cys Ser Asp Val Pro  
515 520 525  
Glu Pro Ala Val Cys Gly Ile Ser Arg Ile Trp Val Phe Arg Leu Lys  
530 535 540  
Arg Arg Lys Arg Ile Ala Arg Arg Leu Val Asp Thr Leu Arg Asn Cys  
545 550 555 560  
Phe Met Phe Gly Cys Phe Leu Ser Thr Asp Glu Ile Ala Phe Ser Asp

					565						570					575			
Pro	Thr	Pro	Asp	Gly	Lys	Leu	Phe	Ala	Thr	Lys	Tyr	Cys	Asn	Thr	Pro				
					580											585			590
Asn	Phe	Leu	Val	Tyr	Asn	Phe	Asn	Ser											
					595											600			

&lt;210&gt; 4069

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4069

Met	Gln	Leu	Arg	Phe	Arg	Gly	His	Ser	Ile	Asn	His	Ser	Leu	Tyr	Met				
1					5					10					15				
His	Asn	Ser	Ser	Gly	Gly	Ser	Arg	Val	Ile	Ile	Ala	Ser	Arg	Ser	Gln				
					20					25					30				
Ile	Ser	Tyr	Phe	Phe	Ile	Asn	Ile	Glu	Thr	Lys	Leu	Trp	Ser	Gln	Ile				
					35					40					45				
Val	Asn	Glu	Arg	Lys	Ile	His	Tyr	Ile	Leu	Glu	Lys	Glu	Ala	Asn	Asp				
					50					55					60				
Val	Asn	Lys	Asp	Glu	Glu	Val	Glu	Asp	Gly	His	Arg	Asn	Cys	Gln	Arg				
					65					70					75				80
Arg	Arg	Trp	Arg	Lys	Met	Arg	Pro	Arg	Gly	Glu	Thr	Glu	Ser	Thr	His				
					85					90					95				
Phe	Ser	Val	Gly	Phe	Pro	Ser	Met	Ser	Pro	Lys	Ser	Lys	Gly	Gln	Pro				
					100					105					110				
Gly	Ala	Ser	Pro	Gln	Ile	Ile	Leu	Ala	Ala	Asp	Ser	Gln							
					115					120					125				

&lt;210&gt; 4070

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4070

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Met Gly Pro Ala Ala Ala Pro Gly His Leu Ser Ser Gly Gly Cys Cys
  1             5             10             15
Val Leu Pro Leu Pro Ser Val Leu Pro Pro Ser Ile Ser Ala Val Pro
          20             25             30
Gly Leu Ala Leu Leu Pro Gly Arg Trp Thr Leu Pro Ser Gln Trp Thr
          35             40             45
Arg Arg Leu Ala Ala Ser Ala Pro Pro Asp Arg Ser Pro Tyr Leu Ser
          50             55             60
Pro Arg Leu Gln Ser Pro Val Pro Thr Ala Ala His Val Ala Ser Phe
          65             70             75             80
Gln Ala Ala Ala Arg Ala Ser Gly Thr Ser Gly Ala Ser Thr Val Ala
          85             90             95
Cys Gly His Gly Pro Arg Ser Phe Ser Pro Leu Ser Ser Ser Ser Arg
          100            105            110
Ala Gly Pro Arg Val Ser Pro Gln Pro Asp Trp Leu Cys Leu Gln Met
          115            120            125
Met Leu Val Thr Gln Leu Phe Val Ser Arg Asn Ala Gly Gly Ile Ala
          130            135            140
Val Pro Phe Ser Gly Ser Ala Ala Phe Ser Leu Ala Val Ile Pro Pro
          145            150            155            160
Gly Glu Ala His Leu Gly Arg Phe Trp Ala Thr Ala Val Trp Leu His

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165

170

175

Ser Gly Gln

&lt;210&gt; 4071

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4071

Met Gly Gly Ala Trp Ser Glu Ala Gln Glu Ala Asp Gly Gly Gly His

1

5

10

15

Gln Gly Gln Glu Ala Ser Asn Pro Pro Leu Arg Ala Thr Pro Ser Leu

20

25

30

Pro Gly Gly Gln Cys Leu Tyr Gly Leu Lys Ala Gly Pro Trp Gly Thr

35

40

45

Thr Ala Asp Phe Cys Phe Asn Trp Lys Gln Thr Gly Ile Asn Phe Pro

50

55

60

Tyr Lys Tyr Ser Ala Asn Asn Leu Glu Val Tyr Lys Gly Lys Ser Glu

65

70

75

80

Gly Ser Thr Gln Pro Ser Cys Pro Thr Phe Thr Leu Thr Gly Asn Gln

85

90

95

Leu Leu Val Val Leu Val Gly Pro Ser Arg His Phe Met Cys Ala Phe

100

105

110

Thr Asn Ile Met His Ser Tyr Val Phe Leu Lys Gly Lys Gln Arg Pro

115

120

125

Gly Ala Val Ala Asp Ala Cys Asn Pro Ser Thr Leu Gly Gly Arg Gly

130

135

140

Gly Arg Ile Thr Arg Ser Gly Asp Gly Asp His Pro Gly

145

150

155

<210> 4072

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4072

Met Ser Arg Trp Leu Trp Pro Trp Ser Asn Cys Val Lys Glu Arg Val

1

5

10

15

Cys Arg Tyr Leu Leu His His Tyr Leu Gly His Phe Phe Gln Glu His

20

25

30

Leu Ser Leu Asp Gln Leu Ser Leu Asp Leu Tyr Lys Gly Ser Val Ala

35

40

45

Leu Arg Asp Ile His Leu Glu Ile Trp Val Arg Ser Gln Ala Arg Val

50

55

60

Gln Glu Val Cys Glu Arg Gly Ala Gly Val Asn Gly Val Thr Ala Gly

65

70

75

80

Ala Gly Gly Arg Leu Arg Gly Leu His Arg Gly Gly Arg Ala Leu Gly

85

90

95

Cys Ser Ala His Arg Pro Leu His Ser Ala Arg Val Arg Pro Pro Ala

100

105

110

His Leu Ala Ala Pro Pro Gly Ser Arg

115

120

<210> 4073



&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4073

Met Arg Ser Leu Leu Ile Leu Ser Trp Asp Ser Trp Ser Ile Ala Phe

1 5 10 15

Leu Ala Gly Asn Leu Cys Gly Gln Trp His Leu Cys Pro Ser Phe Ala

20 25 30

Trp Ala Ser Arg Ser Arg His Arg Cys Leu Leu Pro Ala Arg Leu Gln

35 40 45

Leu Asp Gln Val Tyr Cys Lys Gln Ala Ala Ser Thr Ala Gly Thr Gly

50 55 60

Glu His Gly Gly Gly Gln Lys Leu Gly Asp Thr Arg Asn Cys Arg Ala

65 70 75 80

Pro Lys Arg Val Ser Gln Ala Cys Ile Arg Asn Leu Leu Gly Leu Gly

85 90 95

Ser Leu Lys Gly His Ser Ser Ser Leu Leu Leu Ser Ser Leu Leu Leu

100 105 110

Val Thr Arg Asn Val Ala Ser Lys Gly Cys Val Ser Ala Leu Phe Val

115 120 125

Leu

&lt;210&gt; 4074

&lt;211&gt; 226

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4074

Met	Ala	Asp	Leu	Leu	Pro	Phe	Ala	Val	Pro	Thr	Lys	Ser	Asp	Lys	Thr
1				5					10					15	
Leu	Leu	Val	Trp	Glu	Leu	Ser	Ser	Gly	Pro	Thr	Ala	Asp	Ala	Leu	Tyr
			20					25					30		
Arg	Gln	Gly	Leu	Ala	Val	Leu	Leu	Met	Leu	Val	Leu	Asn	Ser	Trp	Pro
		35						40					45		
Gln	Ala	Ile	Leu	Pro	Ser	Trp	Pro	Pro	Arg	Glu	Gln	Asp	Tyr	Arg	Leu
	50					55					60				
Phe	Leu	Leu	Glu	Val	Val	Gln	Glu	Val	Glu	Glu	Ser	Thr	Ser	Asp	Glu
65					70				75					80	
Gln	Ile	Ala	Gly	Gly	Cys	Ser	His	Ser	His	Val	Ser	Ala	Lys	Lys	Ser
			85						90					95	
Glu	Phe	Ser	Ser	His	Gln	Asn	Gln	Gly	Lys	Asp	Asn	Ala	Ala	Val	Met
		100						105					110		
Val	Gln	Ser	Cys	Leu	Glu	Gly	Glu	Thr	Ala	Leu	Val	Phe	Pro	Ala	Leu
	115							120					125		
Glu	Ile	Asn	Val	Val	Pro	Leu	Asn	His	Lys	Asp	Cys	Pro	Trp	Gly	Glu
	130						135					140			
Glu	Gln	Arg	Pro	Gly	Trp	Thr	Gly	Asp	His	Ala	Arg	Ser	Arg	Ala	Leu
145					150					155				160	
Gln	Lys	Cys	Gln	Ser	Glu	Gly	Ser	Gly	His	Arg	Leu	Gly	Pro	Phe	Gly
			165						170					175	
Met	Met	Gly	Lys	Phe	Ala	Lys	Val	Arg	Arg	Gln	Glu	Leu	Gly	Ser	Ser
			180						185					190	
Leu	Lys	Gln	Arg	Gly	Phe	Gln	Ala	Ala	Glu	Glu	Pro	Glu	Asp	Pro	Ala
	195							200						205	
Ser	Ala	Pro	Asp	Thr	Val	Leu	Asp	His	Leu	Phe	Pro	Phe	Pro	Ser	Cys

<210> 4075  
<211> 362  
<212> PRT  
<213> Homo sapiens

出証特 2 0 0 4 - 3 0 5 9 6 6 0

His Thr Phe Thr Val Asn Pro Arg Arg Ser Val Pro Pro Ala Thr Pro  
 145 150 155 160  
 Ala Thr Pro Thr Ser Pro Ala Thr Val Asp Ala Ala Val Pro Gly Ala  
 165 170 175  
 Gly Lys Lys Arg Tyr Pro Thr Ala Glu Glu Ile Leu Val Leu Gly Gly  
 180 185 190  
 Tyr Leu Arg Leu Ser Arg Ser Cys Leu Ala Lys Gly Ser Pro Glu Arg  
 195 200 205  
 His His Lys Gln Leu Lys Ile Ser Phe Ser Glu Thr Ala Leu Glu Thr  
 210 215 220  
 Thr Tyr Gln Tyr Pro Ser Glu Ser Ser Val Leu Glu Arg Arg Arg Ala  
 225 230 235 240  
 Lys Leu Gly Leu Ser Pro Gly Glu Pro Ser Pro Val Leu Gly Thr Val  
 245 250 255  
 Glu Ala Gly Pro Pro Asp Pro Asp Glu Ser Ala Val Leu Leu Glu Ala  
 260 265 270  
 Ile Gly Pro Val His Gln Asn Arg Phe Ile Arg Gln Glu Arg Gln Gln  
 275 280 285  
 Gln Gln Gln Gln Gln Gln Arg Ser Glu Glu Leu Leu Ala Glu Arg Lys  
 290 295 300  
 Pro Gly Pro Leu Glu Ala Arg Glu Arg Arg Pro Ser Pro Gly Glu Met  
 305 310 315 320  
 Arg Asp Gln Ser Pro Lys Gly Arg Glu Ser Arg Glu Glu Asp Glu Glu  
 325 330 335  
 Glu Leu Leu Leu Leu Gln Pro Glu Leu Gln Gly Gly Leu Arg Thr Lys  
 340 345 350  
 Ala Leu Ile Val Asp Glu Ser Cys Arg Arg  
 355 360

&lt;210&gt; 4076

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4076

Met Pro Leu Pro Ile Asn Thr Ile Gly Cys Leu Leu Ser Tyr Pro Lys

1 5 10 15

Pro Phe Asp Thr Ala His Trp Lys Met Glu Phe Met Leu Leu His Gly

20 25 30

Leu Gly Phe Ala Thr Cys Leu Thr Phe Thr Val Ser Met Leu Pro Asn

35 40 45

Ser Gly Ala Gly Ala Pro Ala Ser Leu His Pro Pro Pro Phe Cys Ile

50 55 60

Arg Gln Gly Ile Ser Ser Pro Thr Pro Thr Ala Ser Leu Pro Lys Cys

65 70 75 80

Leu His Cys Gln Leu Lys Leu Pro Ala Ala His Phe Asn Pro Ala Leu

85 90 95

Thr Gly Thr Trp Lys Ser Ser His His Thr Ser Ile Phe Pro Ser Thr

100 105 110

Ser Leu Phe

115

&lt;210&gt; 4077

&lt;211&gt; 515

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4077

Met Val Leu Ser Gln Glu Glu Pro Asp Ser Ala Arg Gly Thr Ser Glu  
 1 5 10 15  
 Ala Gln Pro Leu Gly Pro Ala Pro Thr Gly Ala Ala Pro Pro Pro Gly  
 20 25 30  
 Pro Gly Pro Ser Asp Ser Pro Glu Ala Ala Val Glu Lys Val Glu Val  
 35 40 45  
 Glu Leu Ala Gly Pro Ala Thr Ala Glu Pro His Glu Pro Pro Glu Pro  
 50 55 60  
 Pro Glu Gly Gly Trp Gly Trp Leu Val Met Leu Ala Ala Met Trp Cys  
 65 70 75 80  
 Asn Gly Ser Val Phe Gly Ile Gln Asn Ala Cys Gly Val Leu Phe Val  
 85 90 95  
 Ser Met Leu Glu Thr Phe Gly Ser Lys Asp Asp Asp Lys Met Val Phe  
 100 105 110  
 Lys Thr Ala Trp Val Gly Ser Leu Ser Met Gly Met Ile Phe Phe Cys  
 115 120 125  
 Cys Pro Ile Val Ser Val Phe Thr Asp Leu Phe Gly Cys Arg Lys Thr  
 130 135 140  
 Ala Val Val Gly Ala Ala Val Gly Phe Val Gly Leu Met Ser Ser Ser  
 145 150 155 160  
 Phe Val Ser Ser Ile Glu Pro Leu Tyr Leu Thr Tyr Gly Ile Ile Phe  
 165 170 175  
 Ala Cys Gly Cys Ser Phe Ala Tyr Gln Pro Ser Leu Val Ile Leu Gly  
 180 185 190  
 His Tyr Phe Lys Lys Arg Leu Gly Leu Val Asn Gly Ile Val Thr Ala  
 195 200 205  
 Gly Ser Ser Val Phe Thr Ile Leu Leu Pro Leu Leu Leu Arg Val Leu

210	215	220
Ile Asp Ser Val Gly Leu Phe Tyr Thr Leu Arg Val Leu Cys Ile Phe		
225	230	235
Met Phe Val Leu Phe Leu Ala Gly Phe Thr Tyr Arg Pro Leu Ala Thr		
245	250	255
Ser Thr Lys Asp Lys Glu Ser Gly Gly Ser Gly Ser Ser Leu Phe Ser		
260	265	270
Arg Lys Lys Phe Ser Pro Pro Lys Lys Ile Phe Asn Phe Ala Ile Phe		
275	280	285
Lys Val Thr Ala Tyr Ala Val Trp Ala Val Gly Ile Pro Leu Ala Leu		
290	295	300
Phe Gly Tyr Phe Val Pro Tyr Val His Leu Met Lys His Val Asn Glu		
305	310	315
Arg Phe Gln Asp Glu Lys Asn Lys Glu Val Val Leu Met Cys Ile Gly		
325	330	335
Val Thr Ser Gly Val Gly Arg Leu Leu Phe Gly Arg Ile Ala Asp Tyr		
340	345	350
Val Pro Gly Val Lys Lys Val Tyr Leu Gln Val Leu Ser Phe Phe Phe		
355	360	365
Ile Gly Leu Met Ser Met Met Ile Pro Leu Cys Ser Ile Phe Gly Ala		
370	375	380
Leu Ile Ala Val Cys Leu Ile Met Gly Leu Phe Asp Gly Cys Phe Ile		
385	390	395
Ser Ile Met Ala Pro Ile Ala Phe Glu Leu Val Gly Ala Gln Asp Val		
405	410	415
Ser Gln Ala Ile Gly Phe Leu Leu Gly Phe Met Ser Ile Pro Met Thr		
420	425	430
Val Gly Pro Pro Ile Ala Gly Leu Leu Arg Asp Lys Leu Gly Ser Tyr		
435	440	445

Asp Val Ala Phe Tyr Leu Ala Gly Val Pro Pro Leu Ile Gly Gly Ala

450

455

460

Val Leu Cys Phe Ile Pro Trp Ile His Ser Lys Lys Gln Arg Glu Ile

465

470

475

480

Ser Lys Thr Thr Gly Lys Glu Lys Met Glu Lys Met Leu Glu Asn Gln

485

490

495

Asn Ser Leu Leu Ser Ser Ser Ser Gly Met Phe Lys Lys Glu Ser Asp

500

505

510

Ser Ile Ile

515

<210> 4078

<211> 165

<212> PRT

<213> Homo sapiens

<400> 4078

Met Gly Trp Gly Gly Val Gly Gln Met Glu Gln Gln Pro Gly Glu Arg

1

5

10

15

Val Asp Leu Gln Thr Thr Gln Gln Ala Leu Ala Val Ser Ser Met Arg

20

25

30

Asn Arg Arg Asp Ile His Gly Thr Pro Cys Arg Lys Glu Glu Glu Glu

35

40

45

Lys Ser Tyr Leu Leu Gly Pro Tyr Pro Gly Lys Phe Pro Thr Leu Val

50

55

60

Leu Phe Thr Gly Cys Cys Pro Glu Arg Gln Ile Leu Ser Ser Pro Ser

65

70

75

80

His Glu Arg Gly Asn Gln Gly Cys Lys Gln Glu Ser Asp Ser Ala Lys



	85	90	95
Val Thr Gln Leu Glu Ser Gly Arg Asp Gly Thr Gln His Asp Ile Ser			
100	105	110	
Leu Gln Ser Trp Gln Leu Leu Arg Ala Leu Pro Leu Leu Asn Arg Asp			
115	120	125	
Leu Pro Gly Met Thr Arg Arg Pro Ser Gly Phe Ser Gly Leu Val Leu			
130	135	140	
Arg Thr Phe Ile Arg Phe Phe Ser Lys Tyr Leu Leu Ser Ala Thr Val			
145	150	155	160
Cys Gln Ala Leu Phe			
165			

&lt;210&gt; 4079

&lt;211&gt; 272

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4079

Met Gln Ser Asn Met Thr Asn Thr Val Val Arg Thr Thr Leu Arg Asn			
1	5	10	15
Asp Leu Ser Gln Glu Gly Ile Ile His His Leu Lys Ile Leu Ser Pro			
20	25	30	
Ile Tyr Cys Ala Phe Gln Asn Asp Leu Leu Thr Ser Ser Gly Phe Thr			
35	40	45	
Leu Glu Trp Gly Val Tyr Thr Ile Ile Glu Asp Leu His Gly Ala Gly			
50	55	60	
Asn Phe Val Thr Glu Met Gln Leu Phe Ile Gly Asp Ser Pro Ile Pro			
65	70	75	80

Gln Asn Tyr Ser Val Ser Ala Ser Asp Asp Val Arg Ile Glu Val Gly  
85 90 95  
Leu Tyr Arg Gln Lys Ser Asn Leu Lys Val Val Leu Thr Glu Cys Trp  
100 105 110  
Ala Thr Pro Ser Ser Asn Ala Arg Asp Pro Ile Thr Phe Ser Phe Ile  
115 120 125  
Asn Asn Ser Cys Pro Val Pro Asn Thr Tyr Thr Asn Val Ile Glu Asn  
130 135 140  
Gly Asn Ser Asn Lys Ala Gln Phe Lys Leu Arg Ile Phe Ser Phe Ile  
145 150 155 160  
Asn Asn Ser Ile Val Tyr Leu His Cys Lys Leu Arg Val Cys Met Glu  
165 170 175  
Ser Pro Gly Ala Thr Cys Lys Ile Asn Cys Asn Asn Phe Arg Leu Leu  
180 185 190  
Gln Asn Ser Glu Thr Ser Ala Thr His Gln Met Ser Trp Gly Pro Leu  
195 200 205  
Ile Arg Ser Glu Gly Glu Pro Pro His Ala Glu Ala Gly Leu Gly Ala  
210 215 220  
Gly Tyr Val Val Leu Ile Val Val Ala Ile Phe Val Leu Val Ala Gly  
225 230 235 240  
Thr Ala Thr Leu Leu Ile Val Arg Tyr Gln Arg Met Asn Gly Arg Tyr  
245 250 255  
Asn Phe Lys Ile Gln Ser Asn Asn Phe Ser Tyr Gln Val Phe Tyr Glu  
260 265 270

&lt;210&gt; 4080

&lt;211&gt; 133

&lt;212&gt; PRT

<213> Homo sapiens

<400> 4080

Met Ala Gly Ala Gly Val Gly Gly Trp Val Pro Gly Ala Trp Leu Gln

1 5 10 15

Gly Cys Pro Ser Val Leu Arg Pro Leu Val Ser Leu Pro Ser Ser Ser

20 25 30

Pro Thr Leu Glu Phe Leu Leu Phe Leu Ile Leu Val Met Phe Leu Gly

35 40 45

Phe Ile Val Leu Leu Leu Arg Glu Val Lys Leu His His Gln Asp Trp

50 55 60

Ile Ala Phe Ala Phe Gln Leu Phe Ile His Pro Leu Ala Trp Thr Arg

65 70 75 80

Thr Arg Ala Gly Ile Phe Gly Cys Phe Arg Phe Ala Arg Cys Ser Ile

85 90 95

Phe Ala Gln Val Leu Arg Leu Glu Met His Phe Lys Leu Ser Arg Leu

100 105 110

Ala Gly Lys Met Gln Asp Ala Leu Trp Leu His Lys Cys Cys Thr Ser

115 120 125

Gly Val Gly Ala Gly

130

<210> 4081

<211> 566

<212> PRT

<213> Homo sapiens

<400> 4081

Met Val Arg Glu Lys Tyr Ile Arg Pro Leu Thr Thr Glu Glu Trp Val  
 1 5 10 15  
 Glu Lys Met Met Asp Ala Asp Pro Glu Phe Pro Pro Asp Phe Ala Glu  
 20 25 30  
 Ala Phe Glu Ser Gln Leu Ser Leu Ser Asp Ser Pro Ser Leu Cys Arg  
 35 40 45  
 Pro Val Tyr Ser Lys Lys Gly Leu Glu His Lys Ala Asp Leu Gln Gln  
 50 55 60  
 His Leu Phe Pro Val Pro Pro Gly His Leu Glu Cys Thr Pro Glu Ser  
 65 70 75 80  
 Leu Trp Lys Glu Leu Ser Leu Gln His Glu Gly Leu Lys Glu Leu Ile  
 85 90 95  
 His Lys Gln Met Arg Pro Phe Ser Gln Gly Ile Val Ile Leu Ser Arg  
 100 105 110  
 Ser Trp Ala Val Asp Leu Asn Leu Gln Glu Lys Pro Gly Val Ile Cys  
 115 120 125  
 Asp Ala Leu Leu Ile Ala Gln Asn Ser Thr Pro Ile Leu Tyr Thr Ile  
 130 135 140  
 Leu Arg Glu Gln Asp Ala Glu Gly Gln Asp Tyr Cys Thr Arg Thr Ala  
 145 150 155 160  
 Phe Thr Leu Lys Gln Lys Leu Val Asn Met Gly Gly Tyr Thr Gly Lys  
 165 170 175  
 Val Cys Val Arg Ala Lys Val Leu Cys Leu Ser Pro Glu Ser Ser Thr  
 180 185 190  
 Glu Ala Leu Glu Ala Ala Val Ser Pro Met Asp Tyr Pro Ala Ser Tyr  
 195 200 205  
 Ser Leu Ala Gly Thr Gln His Met Glu Ala Leu Leu Gln Ser Leu Val  
 210 215 220  
 Ile Val Leu Leu Gly Phe Arg Ser Leu Leu Ser Asp Gln Leu Gly Cys

225                      230                      235                      240  
Glu Val Leu Asn Leu Leu Thr Ala Gln Gln Tyr Glu Ile Phe Ser Arg  
                         245                      250                      255  
Ser Leu Arg Lys Asn Arg Glu Leu Phe Val His Gly Leu Pro Gly Ser  
                         260                      265                      270  
Gly Lys Thr Ile Met Ala Met Lys Ile Met Glu Lys Ile Arg Asn Val  
                         275                      280                      285  
Phe His Cys Glu Ala His Arg Ile Leu Tyr Val Cys Glu Asn Gln Pro  
                         290                      295                      300  
Leu Arg Asn Phe Ile Ser Val Arg Asn Ile Cys Arg Ala Glu Thr Arg  
305                      310                      315                      320  
Lys Thr Phe Leu Arg Glu Lys Phe Glu His Ile Gln His Ile Val Ile  
                         325                      330                      335  
Asp Glu Ala Gln Asn Phe Arg Thr Glu Asp Gly Asp Trp Tyr Arg Lys  
                         340                      345                      350  
Ala Lys Thr Ile Thr Gln Arg Glu Lys Asp Cys Pro Gly Val Leu Trp  
                         355                      360                      365  
Ile Phe Leu Asp Tyr Phe Gln Thr Ser His Leu Gly His Ser Gly Leu  
                         370                      375                      380  
Pro Pro Leu Ser Ala Gln Tyr Pro Arg Glu Glu Leu Thr Arg Val Val  
385                      390                      395                      400  
Arg Asn Ala Asp Glu Ile Ala Glu Tyr Ile Gln Gln Glu Met Gln Leu  
                         405                      410                      415  
Ile Ile Glu Asn Pro Pro Ile Asn Ile Pro His Gly Tyr Leu Ala Ile  
                         420                      425                      430  
Leu Ser Glu Ala Lys Trp Val Pro Gly Val Pro Gly Asn Thr Lys Ile  
                         435                      440                      445  
Ile Lys Asn Phe Thr Leu Glu Gln Ile Val Thr Tyr Val Ala Asp Thr  
                         450                      455                      460

Cys Arg Cys Phe Phe Glu Arg Gly Tyr Ser Pro Lys Asp Val Ala Val  
 465 470 475 480  
 Leu Val Ser Thr Val Thr Glu Val Glu Gln Tyr Gln Ser Lys Leu Leu  
 485 490 495  
 Lys Ala Met Arg Lys Lys Met Val Val Gln Leu Ser Asp Ala Cys Asp  
 500 505 510  
 Met Leu Gly Val His Ile Val Leu Asp Ser Val Arg Arg Phe Ser Gly  
 515 520 525  
 Leu Glu Arg Ser Ile Val Phe Gly Ile His Pro Arg Thr Ala Asp Pro  
 530 535 540  
 Ala Ile Leu Pro Asn Ile Leu Ile Cys Leu Ala Ser Arg Ala Lys Gln  
 545 550 555 560  
 His Leu Tyr Ile Phe Leu  
 565

<210> 4082

<211> 208

<212> PRT

<213> Homo sapiens

<400> 4082

Met Leu Met Leu Phe Val Phe Gly Val Leu Leu His Glu Val Ser Leu  
 1 5 10 15  
 Ser Gly Gln Asn Glu Ala Pro Pro Asn Thr His Ser Ile Pro Gly Glu  
 20 25 30  
 Pro Leu Tyr Asn Tyr Ala Ser Ile Arg Leu Pro Glu Glu His Ile Pro  
 35 40 45  
 Phe Phe Leu His Asn Asn Arg His Ile Ala Thr Val Cys Arg Lys Asp

50	55	60
Ser Leu Cys Pro Tyr Lys Lys His Leu Glu Lys Leu Lys Tyr Cys Trp		
65	70	75
Gly Tyr Glu Lys Ser Cys Lys Pro Glu Phe Arg Phe Gly Tyr Pro Val		
85	90	95
Cys Ser Tyr Val Asp Met Gly Trp Thr Asp Thr Leu Glu Ser Ala Glu		
100	105	110
Asp Ile Phe Trp Lys Gln Ala Asp Phe Gly Tyr Ala Arg Glu Arg Leu		
115	120	125
Glu Glu Met His Val Leu Cys Gln Pro Lys Glu Thr Ser Asp Ser Ser		
130	135	140
Leu Val Cys Ser Arg Tyr Leu Gln Tyr Cys Arg Ala Thr Asn Leu Tyr		
145	150	155
Leu Asp Leu Arg Asn Ile Lys Arg Asn His Asp Arg Phe Lys Glu Asp		
165	170	175
Phe Phe Gln Ser Gly Glu Ile Gly Gly His Cys Lys Leu Asp Ile Arg		
180	185	190
Thr Leu Thr Ser Glu Gly Arg Arg Lys Ser Pro Leu Gln Ser Trp Cys		
195	200	205

&lt;210&gt; 4083

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4083

Met Cys Arg Arg Val Leu Ser Gln Ala Val Trp Gly Ser Tyr Gly Pro			
1	5	10	15

Ser Pro Glu Pro Tyr Pro Thr Trp Ser Leu Gly Asp Gly Gln Gln Val  
 20 25 30  
 Pro Gly His Cys Gly Val Cys Gln Leu Leu Gly Ser Phe Pro Gly Met  
 35 40 45  
 Pro Leu Gly Ala Trp Glu Arg Trp Ser Gly Trp Ala Val Phe Pro Ala  
 50 55 60  
 Ala Gly Ser Gly Leu Gly Glu Ala Ala Trp Val Gly Leu Pro Ser Asp  
 65 70 75 80  
 Pro Gly Leu Ser Arg Cys Arg Phe Gly Ile Gly Arg Gly Gly Met Gly  
 85 90 95  
 Gly Pro Pro Ser Arg His Arg Ile Phe Pro Ala Ala Ser Ser Gly Pro  
 100 105 110  
 Gly Glu Ala Ala Trp Val Gly Leu Pro Pro Asp Thr Gly Ser Phe Leu  
 115 120 125  
 Leu Gln Val Trp Asp Gln Glu Arg Arg His Gly Trp Ala Ser Leu Leu  
 130 135 140  
 Thr Gln Val Ser Pro Ala Ala Gly Ser Gly Leu Gly Glu Ala Met Trp  
 145 150 155 160  
 Val Gly Leu Thr Gln Gly Leu Ser Gly Cys Arg Phe Arg Thr Gly Arg  
 165 170 175  
 Gly Gly Val Gly Gly Pro Pro Ser  
 180

&lt;210&gt; 4084

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 4084

Met Tyr Val Cys Leu Tyr Glu Thr Phe Ser Ser Leu Phe Ser Leu Leu  
 1 5 10 15  
 Arg Glu Lys Ile Ser Leu Asn Cys Phe Ser Phe Ser Phe Leu Val Glu  
 20 25 30  
 Tyr His Leu His Pro Leu Phe Leu Ile Ala Ser Leu Pro Met Phe Phe  
 35 40 45  
 Pro Gln Lys Ser Leu Phe Asp Ile Ile Ser Lys Ile Asp Leu Met Val  
 50 55 60  
 Asn Ser Gly Lys Leu Gly Thr Thr Val Lys Pro Lys Ser Leu Val Thr  
 65 70 75 80  
 Ser Ser Ser Gly Ala Leu Lys Lys Gln His Lys Lys Pro Phe Asp Ala  
 85 90 95  
 Met Asn Asn Ile Val Ala Asn Leu Leu Leu Asn Leu Thr Arg  
 100 105 110

&lt;210&gt; 4085

&lt;211&gt; 329

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4085

Met Leu Pro Leu Glu Pro Tyr Leu Thr Gln Thr Ser Ala Val Pro Gln  
 1 5 10 15  
 Met Ser His Phe Met Cys His Ser Pro Thr His Lys Pro Gln Gly Leu  
 20 25 30  
 Leu Pro Trp Ala Pro Phe His Gln Ala Ser Val Ser Leu Tyr Pro Ile  
 35 40 45

Ser Pro Trp Pro Ser Glu Ser Val Cys Pro Pro Thr Cys Pro Gly Gly  
 50 55 60  
 Ala Ser Cys Trp Phe Pro Ala Gly Asn Ala Trp Asp Arg Val Glu Leu  
 65 70 75 80  
 Gly Phe Leu Gly Phe Gly Ala Gly Gly Val Ser Ile Ala Val Pro Gly  
 85 90 95  
 Phe Pro Leu Ser Cys Gly Gln Gly Cys Cys Ala Gly Gly Trp Leu Gly  
 100 105 110  
 His Gly Ala Arg Phe Pro Ala Lys Leu Arg Ala Phe Pro Gln Val Ile  
 115 120 125  
 Arg Arg Gly Trp Leu Thr Ile Asn Asn Ile Ser Leu Met Lys Gly Gly  
 130 135 140  
 Ser Lys Glu Tyr Trp Phe Val Leu Thr Ala Glu Ser Leu Ser Trp Tyr  
 145 150 155 160  
 Lys Asp Glu Glu Glu Lys Glu Lys Lys Tyr Met Leu Pro Leu Asp Asn  
 165 170 175  
 Leu Lys Ile Arg Asp Val Glu Lys Gly Phe Met Ser Asn Lys His Val  
 180 185 190  
 Phe Ala Ile Phe Asn Thr Glu Gln Arg Asn Val Tyr Lys Asp Leu Arg  
 195 200 205  
 Gln Ile Glu Leu Ala Cys Asp Ser Gln Glu Asp Val Asp Ser Trp Lys  
 210 215 220  
 Ala Ser Phe Leu Arg Ala Gly Val Tyr Pro Glu Lys Asp Gln Val Arg  
 225 230 235 240  
 Ser Arg Pro Ala Gln Pro Gly Pro Glu Pro Pro Pro Gly Arg Gly Ser  
 245 250 255  
 Arg Ala Gly Phe Pro Gln Asp Arg Ser Phe Ser Gly His Val Ser Arg  
 260 265 270  
 Glu Ser Leu Lys Ser Cys Ser Arg Cys Pro Leu Glu Gln Ala Lys Glu

275                      280                      285  
 Lys Leu Gly Val Leu Cys His Gln Gly Pro Glu Ser Ser Leu Thr Glu  
 290                      295                      300  
 Ala Ser Asp Arg Gly Thr Gln Gly Met Gly Ser His Leu Leu Cys Ser  
 305                      310                      315                      320  
 Pro Leu Phe Ser Pro Ser Ile Leu Arg  
 325

<210> 4086

<211> 550

<212> PRT

<213> Homo sapiens

<400> 4086

Met Tyr Ser Thr Asp Glu Asn Leu Ile Leu Ser Pro Leu Leu Gly Asn  
 1                      5                      10                      15  
 Val Cys Phe Ser Ser Ser Gln Tyr Ser Ile Cys Phe Thr Leu Gly Ser  
 20                      25                      30  
 Phe Ala Lys Ile Tyr Ala Asp Thr Phe Gly Asp Ile Asn Tyr Gln Glu  
 35                      40                      45  
 Phe Ala Lys Arg Leu Trp Gly Asp Ile Tyr Phe Asn Pro Lys Thr Arg  
 50                      55                      60  
 Lys Phe Thr Lys Lys Ala Pro Thr Ser Ser Ser Gln Arg Ser Phe Val  
 65                      70                      75                      80  
 Glu Phe Ile Leu Glu Pro Leu Tyr Lys Ile Leu Ala Gln Val Val Gly  
 85                      90                      95  
 Asp Val Asp Thr Ser Leu Pro Arg Thr Leu Asp Glu Leu Gly Ile His  
 100                      105                      110

Leu Thr Lys Glu Glu Leu Lys Leu Asn Ile Arg Pro Leu Leu Arg Leu  
 115 120 125  
 Val Cys Lys Lys Phe Phe Gly Glu Phe Thr Gly Phe Val Asp Met Cys  
 130 135 140  
 Val Gln His Ile Pro Ser Pro Lys Val Gly Ala Lys Pro Lys Ile Glu  
 145 150 155 160  
 His Thr Tyr Thr Gly Gly Val Asp Ser Asp Leu Gly Glu Ala Met Ser  
 165 170 175  
 Asp Cys Asp Pro Asp Gly Pro Leu Met Cys His Thr Thr Lys Met Tyr  
 180 185 190  
 Ser Thr Asp Asp Gly Val Gln Phe His Ala Phe Gly Arg Val Leu Ser  
 195 200 205  
 Gly Thr Ile His Ala Gly Gln Pro Val Lys Val Leu Gly Glu Asn Tyr  
 210 215 220  
 Thr Leu Glu Asp Glu Glu Asp Ser Gln Ile Cys Thr Val Gly Arg Leu  
 225 230 235 240  
 Trp Ile Ser Val Ala Arg Tyr His Ile Glu Val Asn Arg Val Pro Ala  
 245 250 255  
 Gly Asn Trp Val Leu Ile Glu Gly Val Asp Gln Pro Ile Val Lys Thr  
 260 265 270  
 Ala Thr Ile Thr Glu Pro Arg Gly Asn Glu Glu Ala Gln Ile Phe Arg  
 275 280 285  
 Pro Leu Lys Phe Asn Thr Thr Ser Val Ile Lys Ile Ala Val Glu Pro  
 290 295 300  
 Val Asn Pro Ser Glu Leu Pro Lys Met Leu Asp Gly Leu Arg Lys Val  
 305 310 315 320  
 Asn Lys Ser Tyr Pro Ser Leu Thr Thr Lys Val Glu Glu Ser Gly Glu  
 325 330 335  
 His Val Ile Leu Gly Thr Gly Glu Leu Tyr Leu Asp Cys Val Met His

340 345 350  
Asp Leu Arg Lys Met Tyr Ser Glu Ile Asp Ile Lys Val Ala Asp Pro  
355 360 365  
Val Val Thr Phe Cys Glu Thr Val Val Glu Thr Ser Ser Leu Lys Cys  
370 375 380  
Phe Ala Glu Thr Pro Asn Lys Lys Asn Lys Ile Thr Met Ile Ala Glu  
385 390 395 400  
Pro Leu Glu Lys Gly Leu Ala Glu Asp Ile Glu Asn Glu Val Val Gln  
405 410 415  
Ile Thr Trp Asn Arg Lys Lys Leu Gly Glu Phe Phe Gln Thr Lys Tyr  
420 425 430  
Asp Trp Asp Leu Leu Ala Ala Arg Ser Ile Trp Ala Phe Gly Pro Asp  
435 440 445  
Ala Thr Gly Pro Asn Ile Leu Val Asp Asp Thr Leu Pro Ser Glu Val  
450 455 460  
Asp Lys Ala Leu Leu Gly Ser Val Lys Asp Ser Ile Val Gln Gly Phe  
465 470 475 480  
Gln Trp Gly Thr Arg Glu Gly Pro Leu Cys Asp Glu Cys Lys Ser Thr  
485 490 495  
Ser Thr Pro Pro Pro Gln Ser Ser Arg Val Leu Ala Ala Arg His Met  
500 505 510  
Ser Gly Met Gly Ser Pro Ser Leu Gly Phe Gly Arg Arg Ser Ser Leu  
515 520 525  
Gly Tyr Thr Gly Pro Ser Gln Val Leu Gly Gln Leu Leu Pro Phe Ser  
530 535 540  
Phe Leu Ile Leu Val Val  
545 550

&lt;210&gt; 4087

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4087

Met Pro Arg Gly Val Gln Ile Lys Lys Arg Ala Cys Ala Gln Met Trp  
1 5 10 15  
Ala Gln Val Ser Gln Arg Gly Lys Ser Ser Phe Trp Pro Ser Leu Gln  
20 25 30  
His Ala Leu Gly Pro Ser Asn Ile Phe Lys Ile Arg Lys Glu Leu Phe  
35 40 45  
Ser Ser His Gln Tyr Leu Leu Cys Phe Gln Thr Ile Phe Phe Ala Asn  
50 55 60  
Leu Pro Cys Gln Cys Ser Val Pro Pro Cys Pro His Thr Ser Ser Ala  
65 70 75 80  
Gly Arg Ala Ala Leu Glu Thr Val Leu Ser Ile Pro Cys Gly Glu Arg  
85 90 95  
Gly Thr Ala Ala Pro Ala Thr Arg  
100

&lt;210&gt; 4088

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4088

Met Ala Leu Cys Asp Cys Gly Ser Pro Ser Ser Asn Gly Pro Ser Leu

1	5	10	15
Ser Tyr Phe Gln Tyr Ser Leu Pro Thr Pro Lys Gly Gly Lys Tyr Ala			
20	25	30	
Ile Asn Pro His Leu Thr Glu Asp Gln Arg Phe Pro Gln Leu Arg Leu			
35	40	45	
Ser Gln Lys Ala Arg Gln Lys Thr Asn Val Phe Ala Pro Asp Phe Ile			
50	55	60	
Ala Gly Val Ser Pro Phe Val Glu Asn Asp Ile Ser Ser Arg Ser Ala			
65	70	75	80
Thr Leu Gln Val Arg Asp Ser Thr Leu Gly Ala Gly Arg Arg Arg Leu			
85	90	95	
Asn Pro Asn Ala Ser Arg Lys Lys Phe Val Lys Lys Arg			
100	105		

&lt;210&gt; 4089

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4089

Met Asn Cys Thr Ala Pro Pro Gly Arg Gly Met Trp His Ala Ala Trp			
1	5	10	15
Gln Leu Ser Leu Gly Leu Gly Ser Ala Gly Ile Ala Gly Val Val Ala			
20	25	30	
Leu Pro Ala Ala Pro Gly Arg Pro Arg Pro Gly Gln Asp Pro Arg Gly			
35	40	45	
Gln Pro Asp Met Pro Arg Leu Gln Cys Leu Pro Arg Ser Leu Leu Ser			
50	55	60	

<210> 4090

&lt;211&gt; 176

<212> PRT

<213> Homo sapiens

<400> 4090

出証特 2 0 0 4 - 3 0 5 9 6 6 0



100 105 110  
Leu Tyr Phe Leu Tyr Phe Phe Phe Phe Leu Arg Trp Ser Leu Ser Val  
115 120 125  
Leu Pro Lys Leu Glu Tyr Ser Gly Val Ile Ser Ala His Cys Asn Phe  
130 135 140  
Cys Leu Pro Gly Ser Ser Asn Ser Ser Cys Leu Ser Leu Pro Ser Arg  
145 150 155 160  
Trp Asn Tyr Arg Cys Pro Leu Pro Cys Leu Ala Asn Phe Cys Ile Phe  
165 170 175

&lt;210&gt; 4091

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4091

Met Val Tyr Asn Asn Glu Val Val Gly Lys Gly Arg Asn Glu Val Asn  
1 5 10 15  
Gln Thr Lys Asn Ala Thr Arg His Ala Glu Met Val Ala Ile Asp Gln  
20 25 30  
Val Leu Asp Trp Cys Arg Gln Ser Gly Lys Ser Pro Ser Glu Val Phe  
35 40 45  
Glu His Thr Val Leu Tyr Val Thr Val Glu Pro Cys Ile Met Cys Ala  
50 55 60  
Ala Ala Leu Arg Leu Met Lys Ile Pro Leu Val Val Tyr Gly Cys Gln  
65 70 75 80  
Asn Glu Arg Phe Gly Gly Cys Gly Ser Val Leu Asn Ile Ala Ser Ala  
85 90 95

Asp Leu Pro Asn Thr Gly Arg Pro Phe Gln Cys Ile Pro Gly Tyr Arg  
 100 105 110  
 Ala Glu Glu Ala Val Glu Met Leu Lys Thr Phe Tyr Lys Gln Glu Asn  
 115 120 125  
 Pro Asn Ala Pro Lys Ser Lys Val Arg Lys Lys Glu Cys Gln Lys Ser  
 130 135 140

<210> 4092

<211> 176

<212> PRT

<213> Homo sapiens

<400> 4092

Met Glu Asn Gly Gln Ile Thr Pro Asp Gly Phe Leu Ser Lys Ser Ala  
 1 5 10 15  
 Pro Ser Glu Leu Ile Asn Met Thr Gly Asp Leu Met Pro Pro Asn Gln  
 20 25 30  
 Val Asp Ser Leu Ser Asp Asp Phe Thr Ser Leu Ser Lys Asp Gly Leu  
 35 40 45  
 Ile Gln Lys Pro Gly Ser Asn Ala Phe Val Gly Gly Ala Lys Asn Cys  
 50 55 60  
 Ser Leu Ser Val Asp Asp Gln Lys Asp Pro Val Ala Ser Thr Leu Gly  
 65 70 75 80  
 Ala Met Pro Asn Thr Leu Gln Ile Thr Pro Ala Met Ala Gln Gly Ile  
 85 90 95  
 Asn Ala Asp Ile Lys His Gln Leu Met Lys Glu Val Arg Lys Phe Gly  
 100 105 110  
 Arg Lys Tyr Glu Arg Ile Phe Ile Leu Leu Glu Glu Val Gln Gly Pro

115                      120                      125  
 Leu Glu Met Lys Lys Gln Phe Val Glu Phe Thr Ile Lys Glu Ala Ala  
 130                      135                      140  
 Arg Phe Lys Arg Arg Val Leu Ile Gln Tyr Leu Glu Lys Arg His Tyr  
 145                      150                      155                      160  
 Lys Val His Leu Arg Leu Pro Pro Thr Ser Asp Ile Cys Ser Cys Met  
 165                      170                      175

<210> 4093

<211> 326

<212> PRT

<213> Homo sapiens

<400> 4093

Met Glu Gly His Val Asp Arg Ser Ser Gln Pro Thr Ala Arg Arg Ile  
 1                      5                      10                      15  
 Ile Asn Ser Asp Pro Val Asp Leu Asp Leu Val Glu Glu Asn Thr Phe  
 20                      25                      30  
 Val Gly Pro Pro Pro Ala Thr Ser Ile Ser Gly Gly Ser Val Tyr Pro  
 35                      40                      45  
 Thr Glu Pro Asn Cys Ser Ser Ala Thr Phe Thr Gly Asn Leu Ser Phe  
 50                      55                      60  
 Leu Ala Ser Leu Gln Leu Ser Ser Asp Val Ser Ser Leu Ser Pro Thr  
 65                      70                      75                      80  
 Ser Asn Asn Ser Arg Ser Ser Ser Ser Ser Ser Asn Gln Lys Ala Pro  
 85                      90                      95  
 Leu Pro Cys Pro Gln Gln Asp Val Ser Arg Pro Pro Gln Ala Leu Pro  
 100                      105                      110

Cys Pro Leu Arg Pro Leu Pro Cys Pro Pro Arg Ala Ser Pro Cys Pro  
115 120 125  
Pro Arg Ala Ser Ser Cys Pro Pro Arg Ala Leu Ser Cys Pro Ser Gln  
130 135 140  
Thr Met Gln Cys Gln Leu Pro Ala Leu Thr His Pro Pro Gln Glu Val  
145 150 155 160  
Pro Cys Pro Arg Gln Asn Ile Pro Gly Pro Pro Gln Asp Ser Leu Gly  
165 170 175  
Leu Pro Gln Asp Val Pro Gly Leu Pro Gln Ser Ile Leu His Pro Gln  
180 185 190  
Asp Val Ala Tyr Leu Gln Asp Met Pro Arg Ser Pro Gly Asp Val Pro  
195 200 205  
Gln Ser Pro Ser Asp Val Ser Pro Ser Pro Asp Ala Pro Gln Ser Pro  
210 215 220  
Gly Gly Met Pro His Leu Pro Gly Asp Val Leu His Ser Pro Gly Asp  
225 230 235 240  
Met Pro His Ser Ser Gly Gly Val Thr His Ser Pro Arg Asp Ile Pro  
245 250 255  
His Leu Pro Gly Asp Arg Pro Asp Phe Thr Gln Asn Asp Val Gln Asn  
260 265 270  
Arg Asp Met Pro Met Asp Ile Ser Ala Leu Ser Ser Pro Ser Cys Thr  
275 280 285  
Pro Ala Trp Gly Thr Glu Gln Asp Ser Val Ser Lys Lys Lys Lys Lys  
290 295 300  
Lys Lys Arg Lys Glu Ile Pro Pro Asn Phe Leu Leu Phe Asn Leu Tyr  
305 310 315 320  
Arg Thr Arg Val Lys Asn  
325

&lt;210&gt; 4094

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4094

Met Gln His Gln Phe Ser Met Pro Thr Val Pro Pro Pro Glu Glu Leu

1 5 10 15

Leu Asp Cys Glu Thr Leu Ile Asp Gln Tyr Leu Arg Asp Pro Asn Leu

20 25 30

Gln Lys Arg Tyr Pro Leu Ala Leu Asn Arg Ile Ala Ala Gln Glu Val

35 40 45

Pro Ile Glu Ile Lys Pro Val Asn Pro Ser Pro Leu Ser Gln Leu Gln

50 55 60

Arg Met Glu Pro Lys Gln Met Phe Trp Val Arg Ala Arg Gly Tyr Ile

65 70 75 80

Gly Lys Ser Thr Pro Trp Met Gly Gly Asn His Ser Pro Arg Gly Leu

85 90 95

Pro Leu Ile Cys Cys Val Ala Leu Gly Thr

100 105

&lt;210&gt; 4095

&lt;211&gt; 401

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4095

Met Ser Leu Trp Lys Lys Thr Val Tyr Arg Ser Leu Cys Leu Ala Leu  
 1 5 10 15  
 Ala Leu Leu Val Ala Val Thr Val Phe Gln Arg Ser Leu Thr Pro Gly  
 20 25 30  
 Gln Phe Leu Gln Glu Pro Pro Pro Pro Thr Leu Glu Pro Gln Lys Ala  
 35 40 45  
 Gln Lys Pro Asn Gly Gln Leu Val Asn Pro Asn Asn Phe Trp Lys Asn  
 50 55 60  
 Pro Lys Asp Val Ala Ala Pro Thr Pro Met Ala Ser Gln Gly Pro Gln  
 65 70 75 80  
 Ala Trp Asp Val Thr Thr Thr Asn Cys Ser Ala Asn Ile Asn Leu Thr  
 85 90 95  
 His Gln Pro Trp Phe Gln Val Leu Glu Pro Gln Phe Arg Gln Phe Leu  
 100 105 110  
 Phe Tyr Arg His Cys Arg Tyr Phe Pro Met Leu Leu Asn His Pro Glu  
 115 120 125  
 Lys Cys Arg Gly Asp Val Tyr Leu Leu Val Val Val Lys Ser Val Ile  
 130 135 140  
 Thr Gln His Asp Arg Arg Glu Ala Ile Arg Gln Thr Trp Gly Arg Glu  
 145 150 155 160  
 Arg Gln Ser Ala Gly Gly Gly Arg Gly Ala Val Arg Thr Leu Phe Leu  
 165 170 175  
 Leu Gly Thr Ala Ser Lys Gln Glu Glu Arg Thr His Tyr Gln Gln Leu  
 180 185 190  
 Leu Ala Tyr Glu Asp Arg Leu Tyr Gly Asp Ile Leu Gln Trp Gly Phe  
 195 200 205  
 Leu Asp Thr Phe Phe Asn Leu Thr Leu Lys Glu Ile His Phe Leu Lys  
 210 215 220  
 Trp Leu Asp Ile Tyr Cys Pro His Val Pro Phe Ile Phe Lys Gly Asp

出証特 2 0 0 4 - 3 0 5 9 6 6 0

&lt;400&gt; 4096

Met Asn Ala Leu Gln Ser Leu Thr Gly Gly Pro Ala Ala Gly Ala Ala  
1 5 10 15  
Gly Ile Gly Met Pro Pro Arg Gly Pro Gly Gln Ser Leu Gly Gly Met  
20 25 30  
Gly Ser Leu Gly Ala Met Gly Gln Pro Met Ser Leu Ser Gly Gln Pro  
35 40 45  
Pro Pro Gly Thr Ser Gly Met Ala Pro His Ser Met Ala Val Val Ser  
50 55 60  
Thr Ala Thr Pro Gln Thr Gln Leu Gln Leu Gln Gln Val Ala Leu Gln  
65 70 75 80  
Gln Gln Gln Gln Gln Gln Gln Phe Gln Gln Gln Gln Gln Ala Ala Leu  
85 90 95  
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Phe Gln Ala Gln Gln  
100 105 110  
Ser Ala Met Gln Gln Gln Phe Gln Ala Val Val Gln Gln Gln Gln Gln  
115 120 125  
Leu Gln Gln Gln Gln Gln Gln Gln Gln Gln His Leu Ile Lys Leu His His  
130 135 140  
Gln Asn Gln Gln Gln Ile Gln Gln Gln Gln Gln Gln Leu Gln Arg Ile  
145 150 155 160  
Ala Gln Leu Gln Leu Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln  
165 170 175  
Gln Gln Gln Gln Gln Gln Ala Leu Gln Ala Gln Pro Pro Ile Gln Gln  
180 185 190  
Pro Pro Met Gln Gln Pro Gln Pro Pro Pro Ser Gln Ala Leu Pro Gln  
195 200 205  
Gln Leu Gln Gln Met His His Thr Gln His His Gln Pro Pro Pro Gln



210	215	220
Pro Gln Gln Pro Pro Val	Ala Gln Asn Gln Pro Ser Gln Leu Pro Pro	
225	230	235
Gln Ser Gln Thr Gln Pro Leu Val	Ser Gln Ala Gln Ala Leu Pro Gly	
245	250	255
Gln Met Leu Tyr Thr Gln Pro Pro Leu Lys Phe Val Arg Ala Pro Met		
260	265	270
Val Val Gln Gln Pro Pro Val Gln Pro Gln Val Gln Gln Gln Gln Thr		
275	280	285
Ala Val Gln Thr Ala Gln Ala Ala Gln Met Val Ala Pro Gly Val Gln		
290	295	300
Val Ser Gln Ser Ser Leu Pro Met Leu Ser Ser Pro Ser Pro Gly Gln		
305	310	315
Gln Val Gln Thr Pro Gln Ser Met Pro Pro Pro Pro Gln Pro Ser Pro		
325	330	335
Gln Pro Gly Gln Pro Ser Ser Gln Pro Asn Ser Asn Val Ser Ser Gly		
340	345	350
Pro Ala Pro Ser Pro Ser Ser Phe Leu Pro Ser Pro Ser Pro Gln Pro		
355	360	365
Ser Gln Ser Pro Val Thr Ala Arg Thr Pro Gln Asn Phe Ser Val Pro		
370	375	380
Ser Pro Gly Pro Leu Asn Thr Pro Val Asn Pro Ser Ser Val Met Ser		
385	390	395
Pro Ala Gly Ser Ser Gln Ala Glu Glu Gln Gln Tyr Leu Asp Lys Leu		
405	410	415
Lys Gln Leu Ser Lys Tyr Ile Glu Pro Leu Arg Arg Met Ile Asn Lys		
420	425	430
Ile Asp Lys Asn Glu Asp Arg Lys Lys Asp Leu Ser Lys Met Lys Ser		
435	440	445

Leu Leu Asp Ile Leu Thr Asp Pro Ser Lys Arg Cys Pro Leu Lys Thr  
450 455 460

Leu Gln Lys Cys Glu Ile Ala Leu Glu Lys Leu Lys Asn Asp Met Ala  
465 470 475 480

Val Pro Thr Pro Pro Pro Pro Pro Val Pro Pro Thr Lys Gln Gln Tyr  
485 490 495

Leu Cys Gln Pro Leu Leu Asp Ala Val Leu Ala Asn Ile Arg Ser Pro  
500 505 510

Val Phe Asn His Ser Leu Tyr Arg Thr Phe Val Pro Ala Met Thr Ala  
515 520 525

Ile His Gly Pro Pro Ile Thr Ala Pro Val Val Cys Thr Arg Lys Arg  
530 535 540

Arg Leu Glu Asp Asp Glu Arg Gln Ser Ile Pro Ser Val Leu Gln Gly  
545 550 555 560

Glu Val Ala Arg Leu Asp Pro Lys Phe Leu Val Asn Leu Asp Pro Ser  
565 570 575

His Cys Ser Asn Asn Gly Thr Val His Leu Ile Cys Lys Leu Asp Asp  
580 585 590

Lys Asp Leu Pro Ser Val Pro Pro Leu Glu Leu Ser Val Pro Ala Asp  
595 600 605

Tyr Pro Ala Gln Ser Pro Leu Trp Ile Asp Arg Gln Trp Gln Tyr Asp  
610 615 620

Ala Asn Pro Phe Leu Gln Ser Val His Arg Cys Met Thr Ser Arg Leu  
625 630 635 640

Leu Gln Leu Pro Asp Lys His Ser Val Thr Ala Leu Leu Asn Thr Trp  
645 650 655

Ala Gln Ser Val His Gln Ala Cys Leu Ser Ala Ala  
660 665

&lt;210&gt; 4097

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4097

Met Gln His Asn Ala Trp Leu Ile Phe Val Phe Ser Val Asp Thr Gly

1 5 10 15

Phe Cys His Val Val Gln Ala Gly Leu Lys Leu Leu Ser Ser Ser Asp

20 25 30

Pro Pro Thr Leu Ala Ser Gln Ser Ala Arg Ile Thr Gly Met Ser His

35 40 45

Gly Ala Trp Pro Ser Leu Ala Val Phe Tyr Lys Ala Lys His Ala Thr

50 55 60

Thr Ile Gln Pro Thr Asn Tyr Thr Leu Gly His Leu Ser Gln Arg Asn

65 70 75 80

Glu Asn Ile Leu Thr Lys Asn Pro His Met Asn Ala His Ser Ile Leu

85 90 95

Gly His Asn Ser

100

&lt;210&gt; 4098

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4098

Met Ser Ser Leu Glu Ile Ser Ser Ser Cys Phe Ser Leu Glu Thr Lys  
 1 5 10 15  
 Leu Pro Leu Ser Pro Pro Leu Val Glu Asp Ser Ala Phe Glu Pro Ser  
 20 25 30  
 Arg Lys Asp Met Asp Glu Val Glu Glu Lys Ser Lys Asp Val Ile Asn  
 35 40 45  
 Phe Thr Ala Glu Lys Leu Ser Val Asp Glu Val Ser Gln Leu Val Ile  
 50 55 60  
 Ser Pro Leu Cys Gly Ala Ile Ser Leu Phe Val Gly Thr Thr Arg Asn  
 65 70 75 80  
 Asn Phe Glu Gly Lys Lys Val Ile Ser Leu Glu Tyr Glu Ala Tyr Leu  
 85 90 95  
 Pro Met Ala Glu Asn Glu Val Arg Lys Ile Cys Ser Asp Ile Arg Gln  
 100 105 110  
 Lys Trp Pro Val Lys His Ile Ala Val Phe His Arg Leu Gly Tyr Asp  
 115 120 125  
 Phe Leu Tyr His Ser Lys Ser  
 130 135

&lt;210&gt; 4099

&lt;211&gt; 488

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4099

Met Gln His Val Ser Ser Ser Gln Ser Ser Gln Arg His Val Gln Trp  
 1 5 10 15  
 Pro Gly Ala Cys Pro Gly Ala Gly Glu Glu Gln Pro Ala Cys Ser Gln

20	25	30
Pro Ser Leu Pro Leu Thr Leu Pro Ser Pro Ser His Gln Leu Gln Gln		
35	40	45
Leu Met Val Arg Gly Gly Pro Ala Gly Gly Gln Asn Met Asn Val Asp		
50	55	60
Leu Gln Gly Val Gly Pro Gly Leu Gln Gly Ser Pro Gln Val Thr Leu		
65	70	75
Ala Pro Leu Pro Leu Pro Ser Pro Thr Ser Pro Gly Phe Gln Phe Ser		
85	90	95
Ala Gln Pro Arg Arg Phe Glu His Gly Ser Pro Ser Tyr Ile Gln Val		
100	105	110
Thr Ser Pro Leu Ser Gln Gln Val Gln Thr Gln Ser Pro Thr Gln Pro		
115	120	125
Ser Pro Gly Pro Gly Gln Ala Leu Gln Asn Val Arg Ala Gly Ala Pro		
130	135	140
Gly Pro Gly Leu Gly Leu Cys Ser Ser Ser Pro Thr Gly Asp Phe Val		
145	150	155
Asp Ala Ser Val Leu Val Arg Gln Ile Ser Leu Ser Pro Ser Ser Gly		
165	170	175
Gly His Leu Val Phe Gln Asp Gly Ser Gly Leu Thr Gln Ile Ala Gln		
180	185	190
Gly Ala Gln Val Gln Leu Gln His Pro Gly Thr Pro Ile Thr Val Arg		
195	200	205
Glu Arg Arg Pro Ser Gln Pro His Thr Gln Ser Gly Gly Thr Ile His		
210	215	220
His Leu Gly Pro Gln Ser Pro Ala Ala Ala Gly Gly Ala Gly Leu Gln		
225	230	235
Pro Leu Ala Ser Pro Ser His Ile Thr Thr Ala Asn Leu Pro Pro Gln		
245	250	255

Ile Ser Ser Ile Ile Gln Gly Gln Leu Val Gln Gln Gln Gln Val Leu  
 260 265 270  
 Gln Gly Pro Pro Leu Pro Arg Pro Leu Gly Phe Glu Arg Thr Pro Gly  
 275 280 285  
 Val Leu Leu Pro Gly Ala Gly Gly Ala Ala Gly Phe Gly Met Thr Ser  
 290 295 300  
 Pro Pro Pro Pro Thr Ser Pro Ser Arg Thr Ala Val Pro Pro Gly Leu  
 305 310 315 320  
 Ser Ser Leu Pro Leu Thr Ser Val Gly Asn Thr Gly Met Lys Lys Val  
 325 330 335  
 Pro Lys Lys Leu Glu Glu Ile Pro Pro Ala Ser Pro Glu Met Ala Gln  
 340 345 350  
 Met Arg Lys Gln Cys Leu Asp Tyr His His Gln Glu Met Gln Ala Leu  
 355 360 365  
 Lys Glu Val Phe Lys Glu Tyr Leu Ile Glu Leu Phe Phe Leu Gln His  
 370 375 380  
 Phe Gln Gly Asn Met Met Asp Phe Leu Ala Phe Lys Glu Arg Leu Tyr  
 385 390 395 400  
 Gly Pro Leu Gln Ala Tyr Leu Arg Gln Asn Asp Leu Asp Ile Glu Glu  
 405 410 415  
 Glu Glu Glu Glu His Phe Glu Val Ile Asn Asp Glu Val Lys Val Val  
 420 425 430  
 Ala Arg Lys His Gly Gln Pro Gly Thr Ser Val Ala Ile Ala Thr Gln  
 435 440 445  
 Leu Pro Pro Arg Thr Ser Ala Ala Phe Pro Ala Gln Gln Gln Pro Leu  
 450 455 460  
 Gln Gln Ile His Met Gly Thr Pro Val Pro Gly Asp Val Asn Ser Ile  
 465 470 475 480  
 Lys Met Glu Ala Ser Lys Arg Gln

485

&lt;210&gt; 4100

&lt;211&gt; 262

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4100

Met Tyr Ile Leu Val Tyr Thr Tyr Val Tyr Thr Cys Ile Cys Ile Arg  
 1 5 10 15  
 Val Tyr Val His Val Tyr Gly Cys Thr Asp Val Tyr Ser Met Tyr Ile  
 20 25 30  
 Cys Met His Val Tyr Met Cys Thr Leu Tyr Thr Val Tyr Met Cys Val  
 35 40 45  
 Tyr Met Cys Thr Cys Ile Pro Val Arg Val Tyr Ile His Ile Ile Tyr  
 50 55 60  
 Thr Tyr Met Tyr Ile His Met His Ala Tyr Ala Tyr Met Cys Val Phe  
 65 70 75 80  
 Ile Cys Thr His Met His Thr Tyr Val Tyr Ser Tyr Ala Arg Val Cys  
 85 90 95  
 Ile His Met Tyr Ile His Ile His Ala Tyr Ala Tyr Ile Cys Ile Phe  
 100 105 110  
 Ile Tyr Thr His Met His Thr Tyr Val Tyr Ser Tyr Ala Arg Ile Cys  
 115 120 125  
 Ile His Met Tyr Ile His Ile His Ala Tyr Ala Cys Ile Cys Met Phe  
 130 135 140  
 Met Tyr Ala His Met Arg Ala Tyr Val Tyr Ser Tyr Thr Arg Ile Cys  
 145 150 155 160

Ile His Ile Cys Ile Phe Ile Tyr Thr Tyr Val Cys Met Cys Val Cys  
                     165                    170                    175  
 Ser Cys Ile His Val Tyr Thr Cys Val Tyr Ile His Ile Tyr Ile Gly  
                     180                    185                    190  
 Met His Ile Cys Val Tyr Ser Tyr Met His Arg Tyr Thr Tyr Val Tyr  
                     195                    200                    205  
 Ile His Ile Tyr Ile Cys Ile His Met Tyr Thr His Ile His Ile His  
                     210                    215                    220  
 Thr His Asn Phe Ser Leu Thr Ile Cys Leu Leu Met Asn Thr Val Cys  
 225                    230                    235                    240  
 Phe Ser Ile Leu Ala Thr Gly Asn Asn Ala Ser Met Asn Met Ala Val  
                     245                    250                    255  
 Gln Ile Tyr Leu Arg Tyr  
                     260

<210> 4101

<211> 527

<212> PRT

<213> Homo sapiens

<400> 4101

Met Trp Pro Phe Ile Cys Gln Phe Ile Glu Lys Leu Phe Arg Glu Thr  
           1                    5                    10                    15  
 Ile Glu Pro Ala Val Arg Gly Ala Asn Thr His Leu Ser Thr Phe Ser  
                     20                    25                    30  
 Phe Thr Lys Val Asp Val Gly Gln Gln Pro Leu Arg Ile Asn Gly Val  
                     35                    40                    45  
 Lys Val Tyr Thr Glu Asn Val Asp Lys Arg Gln Ile Ile Leu Asp Leu



50	55	60	
Gln Ile Ser Phe Val Gly Asn Cys Glu Ile Asp Leu Glu Ile Lys Arg			
65	70	75	80
Tyr Phe Cys Arg Ala Gly Val Lys Ser Ile Gln Ile His Gly Thr Met			
	85	90	95
Arg Val Ile Leu Glu Pro Leu Ile Gly Asp Met Pro Leu Val Gly Ala			
	100	105	110
Leu Ser Ile Phe Phe Leu Arg Lys Pro Leu Leu Glu Ile Asn Trp Thr			
	115	120	125
Gly Leu Thr Asn Leu Leu Asp Val Pro Gly Leu Asn Gly Leu Ser Asp			
	130	135	140
Thr Ile Ile Leu Asp Ile Ile Ser Asn Tyr Leu Val Leu Pro Asn Arg			
145	150	155	160
Ile Thr Val Pro Leu Val Ser Glu Val Gln Ile Ala Gln Leu Arg Phe			
	165	170	175
Pro Val Pro Lys Gly Val Leu Arg Ile His Phe Ile Glu Ala Gln Asp			
	180	185	190
Leu Gln Gly Lys Asp Thr Tyr Leu Lys Gly Leu Val Lys Gly Lys Ser			
	195	200	205
Asp Pro Tyr Gly Ile Ile Arg Val Gly Asn Gln Ile Phe Gln Ser Arg			
	210	215	220
Val Ile Lys Glu Asn Leu Ser Pro Lys Trp Asn Glu Val Tyr Glu Ala			
225	230	235	240
Leu Val Tyr Glu His Pro Gly Gln Glu Leu Glu Ile Glu Leu Phe Asp			
	245	250	255
Glu Asp Pro Asp Lys Asp Asp Phe Leu Gly Ser Leu Met Ile Asp Leu			
	260	265	270
Ile Glu Val Glu Lys Glu Arg Leu Leu Asp Glu Trp Phe Thr Leu Asp			
	275	280	285

Glu Val Pro Lys Gly Lys Leu His Leu Arg Leu Glu Trp Leu Thr Leu  
 290 295 300  
 Met Pro Asn Ala Ser Asn Leu Asp Lys Val Leu Thr Asp Ile Lys Ala  
 305 310 315 320  
 Asp Lys Asp Gln Ala Asn Asp Gly Leu Ser Ser Ala Leu Leu Ile Leu  
 325 330 335  
 Tyr Leu Asp Ser Ala Arg Asn Leu Pro Ser Gly Lys Lys Ile Ser Ser  
 340 345 350  
 Asn Pro Asn Pro Val Val Gln Met Ser Val Gly His Lys Ala Gln Glu  
 355 360 365  
 Ser Lys Ile Arg Tyr Lys Thr Asn Glu Pro Val Trp Glu Glu Asn Phe  
 370 375 380  
 Thr Phe Phe Ile His Asn Pro Lys Arg Gln Asp Leu Glu Val Glu Val  
 385 390 395 400  
 Arg Asp Glu Gln His Gln Cys Ser Leu Gly Ser Leu Lys Val Pro Leu  
 405 410 415  
 Ser Gln Leu Leu Thr Ser Glu Asp Met Thr Val Ser Gln Arg Phe Gln  
 420 425 430  
 Leu Ser Asn Ser Gly Pro Asn Ser Thr Ile Lys Met Lys Ile Ala Leu  
 435 440 445  
 Arg Val Leu His Leu Glu Lys Arg Glu Arg Pro Pro Asp His Gln His  
 450 455 460  
 Ser Ala Gln Val Lys Arg Pro Ser Val Ser Lys Glu Gly Arg Lys Thr  
 465 470 475 480  
 Ser Ile Lys Ser His Met Ser Gly Ser Pro Gly Pro Gly Gly Ser Asn  
 485 490 495  
 Thr Ala Pro Ser Thr Ser Gln Ser Arg Ser Arg Pro Pro Ala Ser Pro  
 500 505 510  
 Arg Thr Ser Arg Cys Pro Ser Pro Pro Arg Ser Cys Gly Lys Gly

515

520

525

&lt;210&gt; 4102

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4102

Met Gly Pro Cys Asn Gln Ala Gln Leu Cys Leu Val Phe Val Gln Thr

1

5

10

15

Ser Asn Gly Pro Gly Arg Gly Trp His Phe Gly Tyr Phe Cys Leu Arg

20

25

30

Gly Phe Leu Tyr Pro Asp Gln Ser Gln Pro His Ser Gln Trp Val Met

35

40

45

Arg Val Glu Ile Ala Ser Ser Tyr Pro Cys Phe Leu Gln Cys Leu Phe

50

55

60

Pro His Pro Asn Arg His Thr His Ala His Thr His Thr His Thr His

65

70

75

80

Thr His Thr His Thr Pro Ser Phe Pro Leu Leu Leu Ser Leu Gly Thr

85

90

95

Gly Ala Pro Pro Cys Ser Pro Cys Ser Thr Gln Pro Pro Gly Arg Ser

100

105

110

Pro Pro Thr Phe Asp Glu Ser Pro Pro Arg Lys Lys Tyr Asn Asn Leu

115

120

125

Glu Phe Gln Leu Asn Leu Gln

130

135

&lt;210&gt; 4103

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4103

Met Arg Val Arg Met Cys Thr Tyr Cys Ser Leu Asp Phe Pro Ile Thr

1 5 10 15

Lys Cys Leu Ser Gln Val Thr Leu Ser Ser Ser Ser Gln Phe Leu Arg

20 25 30

Gln Ala Met Glu Thr Gly Ala Asp Ala Lys Trp Ser Arg Gly Arg Arg

35 40 45

Ala Ala Cys Phe Ala Gly Pro Ala Pro Arg Leu Pro Ser Arg Ala Ala

50 55 60

Leu Ser Leu Gly Thr Val Asn Ser His Arg Ser Cys Gln Pro Pro Val

65 70 75 80

Leu Gly His Ala Pro His Met Asp Leu Glu Ser Val Ser Leu Leu Leu

85 90 95

Met Ser Thr Ser Arg Ser Leu Ser Phe Ala Phe Met Cys Leu Tyr Ser

100 105 110

Leu Tyr Ser Ser Ala Ile Gly Val Arg Ser Ser Phe Trp Thr Phe Leu

115 120 125

Met Gln Ile Lys Glu Lys Gly Val

130 135

&lt;210&gt; 4104

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4104

Met Gly His Ala Gly Cys Gln Phe Lys Ala Leu Leu Trp Lys Asn Trp

1 5 10 15

Leu Cys Arg Leu Arg Asn Pro Val Leu Phe Leu Ala Glu Phe Phe Trp

20 25 30

Pro Cys Ile Leu Phe Val Ile Leu Thr Val Leu Arg Phe Gln Glu Pro

35 40 45

Pro Arg Tyr Arg Asp Ile Cys Tyr Leu Gln Pro Arg Asp Leu Pro Ser

50 55 60

Cys Gly Val Ile Pro Phe Val Gln Ser Leu Leu Cys Asn Thr Gly Ser

65 70 75 80

Arg Cys Arg Asn Phe Ser Tyr Glu Gly Ser Met Glu His His Phe Arg

85 90 95

Leu Ser Arg Phe Gln Thr Ala Ala Asp Pro Lys Lys Val Asn Asn Leu

100 105 110

Ala Phe Leu Lys Glu Ile Gln Asp Leu Ala

115 120

&lt;210&gt; 4105

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4105

Met Ser Ser Ile Val Cys Pro Met Glu Glu Val Leu Arg Ala Ser Ala

1 5 10 15

Gln Asn Lys Asp Asn Thr Lys Gly Ile Gly Arg Phe Tyr Lys Ala Gln  
                     20                    25                    30  
 Phe Leu Ser Leu Met Ser Phe Ile Lys Tyr Phe Pro Tyr Tyr Leu Lys  
                     35                    40                    45  
 Ala Thr Ile Gln Ser Ser Phe Ser Ala Ser Thr Val His Leu Val Cys  
                     50                    55                    60  
 Gly Thr His Ser Val Gln Cys Phe Ile Phe Pro Val Ser Ile Ala Cys  
                     65                    70                    75                    80  
 His Leu Gly Arg Ile Leu Ile Ser Pro Val Thr Thr Thr Pro Asn Arg  
                                     85                    90                    95  
 Ala Leu His Gly Ser Glu Cys Ser Lys Tyr His Leu Leu Thr Asn Ala  
                     100                    105                    110  
 Ser Lys Ser Thr Thr Asn Gln Asn Ile Val Pro Lys Glu Lys Ser Thr  
                     115                    120                    125  
 Lys Tyr His Asn  
                     130

&lt;210&gt; 4106

&lt;211&gt; 824

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4106

Met Ile Arg Ser Ser Ser Asp Ser Ser Tyr Met Ser Gly Ser Pro Gly  
                     1                    5                    10                    15  
 Gly Ser Pro Gly Ser Gly Ser Ala Glu Lys Pro Ser Ser Asp Val Asp  
                     20                    25                    30  
 Ile Ser Thr His Ser Pro Ser Leu Pro Leu Ala Arg Glu Pro Val Val

35	40	45
Leu Ser Ile Ala Ser Ser Arg Leu Pro Gln Glu Ser Pro Pro Leu Pro		
50	55	60
Glu Ser Arg Asp Ser His Pro Pro Leu Arg Leu Lys Lys Ser Phe Glu		
65	70	75
Ile Leu Val Arg Lys Pro Met Ser Ser Lys Pro Lys Pro Pro Pro Arg		
85	90	95
Lys Tyr Phe Lys Ser Asp Ser Asp Pro Gln Lys Ser Leu Glu Glu Arg		
100	105	110
Glu Asn Ser Ser Cys Ser Ser Gly His Thr Pro Pro Thr Cys Gly Gln		
115	120	125
Glu Ala Arg Glu Leu Leu Pro Leu Leu Leu Pro Gln Glu Asp Thr Ala		
130	135	140
Gly Arg Ser Pro Ser Ala Ser Ala Gly Cys Pro Gly Pro Gly Ile Gly		
145	150	155
Pro Gln Thr Lys Ser Ser Thr Glu Gly Glu Pro Gly Trp Arg Arg Ala		
165	170	175
Ser Pro Val Thr Gln Thr Ser Pro Ile Lys His Pro Leu Leu Lys Arg		
180	185	190
Gln Ala Arg Met Asp Tyr Ser Phe Asp Thr Thr Ala Glu Asp Pro Trp		
195	200	205
Val Arg Ile Ser Asp Cys Ile Lys Asn Leu Phe Ser Pro Ile Met Ser		
210	215	220
Glu Asn His Gly His Met Pro Leu Gln Pro Asn Ala Ser Leu Asn Glu		
225	230	235
Glu Glu Gly Thr Gln Gly His Pro Asp Gly Thr Pro Pro Lys Leu Asp		
245	250	255
Thr Ala Asn Gly Thr Pro Lys Val Tyr Lys Ser Ala Asp Ser Ser Thr		
260	265	270

Val Lys Lys Gly Pro Pro Val Ala Pro Lys Pro Ala Trp Phe Arg Gln  
275 280 285

Ser Leu Lys Gly Leu Arg Asn Arg Ala Ser Asp Pro Arg Gly Leu Pro  
290 295 300

Asp Pro Ala Leu Ser Thr Gln Pro Ala Pro Ala Ser Arg Glu His Leu  
305 310 315 320

Gly Ser His Ile Arg Ala Ser Ser Ser Ser Ser Ile Arg Gln Arg Ile  
325 330 335

Ser Ser Phe Glu Thr Phe Gly Ser Pro Gln Leu Pro Asp Lys Gly Ala  
340 345 350

Gln Arg Leu Ser Leu Gln Pro Ser Ser Gly Glu Ala Ala Lys Pro Leu  
355 360 365

Gly Lys His Glu Glu Gly Arg Phe Ser Gly Leu Leu Gly Arg Gly Ala  
370 375 380

Ala Pro Thr Leu Val Pro Gln Gln Pro Glu Gln Val Leu Ser Ser Gly  
385 390 395 400

Ser Pro Ala Ala Ser Glu Ala Arg Asp Pro Gly Val Ser Glu Ser Pro  
405 410 415

Pro Pro Gly Arg Gln Pro Asn Gln Lys Thr Leu Pro Pro Gly Pro Asp  
420 425 430

Pro Leu Leu Arg Leu Leu Ser Thr Gln Ala Glu Glu Ser Gln Gly Pro  
435 440 445

Val Leu Lys Met Pro Ser Gln Arg Ala Arg Ser Phe Pro Leu Thr Arg  
450 455 460

Ser Gln Ser Cys Glu Thr Lys Leu Leu Asp Glu Lys Thr Ser Lys Leu  
465 470 475 480

Tyr Ser Ile Ser Ser Gln Val Ser Ser Ala Val Met Lys Ser Leu Leu  
485 490 495

Cys Leu Pro Ser Ser Ile Ser Cys Ala Gln Thr Pro Cys Ile Pro Lys



500	505	510
Glu Gly Ala Ser Pro Thr Ser Ser Ser Asn Glu Asp Ser Ala Ala Asn		
515	520	525
Gly Ser Ala Glu Thr Ser Ala Leu Asp Thr Gly Phe Ser Leu Asn Leu		
530	535	540
Ser Glu Leu Arg Glu Tyr Thr Glu Gly Leu Thr Glu Ala Lys Glu Asp		
545	550	555
Asp Asp Gly Asp His Ser Ser Leu Gln Ser Gly Gln Ser Val Ile Ser		
565	570	575
Leu Leu Ser Ser Glu Glu Leu Lys Lys Leu Ile Glu Glu Val Lys Val		
580	585	590
Leu Asp Glu Ala Thr Leu Lys Gln Leu Asp Gly Ile His Val Thr Ile		
595	600	605
Leu His Lys Glu Glu Gly Ala Gly Leu Gly Phe Ser Leu Ala Gly Gly		
610	615	620
Ala Asp Leu Glu Asn Lys Val Ile Thr Val His Arg Val Phe Pro Asn		
625	630	635
Gly Leu Ala Ser Gln Glu Gly Ala Ile Gln Lys Gly Asn Glu Val Leu		
645	650	655
Ser Ile Asn Gly Lys Ser Leu Lys Gly Thr Thr His His Asp Ala Leu		
660	665	670
Ala Ile Leu Arg Gln Ala Arg Glu Pro Arg Gln Ala Val Ile Val Thr		
675	680	685
Arg Lys Leu Thr Pro Glu Ala Met Pro Asp Leu Asn Ser Ser Thr Asp		
690	695	700
Ser Ala Ala Ser Ala Ser Ala Ala Ser Asp Val Ser Val Glu Ser Thr		
705	710	715
Glu Ala Thr Val Cys Thr Val Thr Leu Glu Lys Met Ser Ala Gly Leu		
725	730	735

Gly Phe Ser Leu Glu Gly Gly Lys Gly Ser Leu His Gly Asp Lys Pro

740

745

750

Leu Thr Ile Asn Arg Ile Phe Lys Gly Ala Ala Ser Glu Gln Ser Glu

755

760

765

Thr Val Gln Pro Gly Asp Glu Ile Leu Gln Leu Gly Gly Thr Ala Met

770

775

780

Gln Gly Leu Thr Arg Phe Glu Ala Trp Asn Ile Ile Lys Ala Leu Pro

785

790

795

800

Asp Gly Pro Val Thr Ile Val Ile Arg Arg Lys Ser Leu Gln Ser Lys

805

810

815

Glu Thr Thr Ala Ala Gly Asp Ser

820

<210> 4107

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4107

Met Glu Gln Glu Ser Glu Cys Thr Arg Glu Thr Val Arg Pro Thr Ala

1

5

10

15

Gln Ala Ser Trp Pro Ser Ala Trp Leu Leu Leu Gly Cys Ala Asp Gly

20

25

30

Cys Val Leu Arg Gly Tyr Ile Ser Cys Leu Arg Cys Leu Pro Leu Pro

35

40

45

Arg Thr Phe Ile Gly Leu Glu Val Thr Ser Gly His Ala Gln Phe Leu

50

55

60

Asp Leu Val Ser Glu Val Asp Arg Val Met Glu Glu Phe Asn Leu Thr

65                      70                      75                      80  
 Thr Phe Tyr Gln Asp Pro Ser Phe His Leu Ser Leu Ala Trp Cys Val  
                                  85                      90                      95  
 Gly Asp Ala Arg Leu Gln Leu Glu Gly Gln Cys Leu Gln Glu Leu Gln  
                                  100                      105                      110  
 Ala Ile Val Asp Gly Phe Glu Asp Ala Glu Val Leu Leu Arg Val His  
                                  115                      120                      125  
 Thr Glu Gln Val Arg Cys Lys Ser Gly Asn Lys Phe Phe Ser Met Pro  
                                  130                      135                      140  
 Leu Lys  
 145

&lt;210&gt; 4108

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4108

Met Val Leu Pro Gly Leu Thr Leu Cys Ser Gly Ala Val Gly Thr Ser  
                                  1                      5                      10                      15  
 Thr Gln Trp Leu Met Ala Ala Leu Ala Gln Leu Ser Arg Pro Gly Arg  
                                  20                      25                      30  
 Arg Leu Pro Pro Pro Pro Pro Cys Cys Cys Leu Val Gln Pro Leu His  
                                  35                      40                      45  
 Gly Ser Ser Ser Leu Cys Gln Arg Glu Gly Leu Phe His His Lys Gln  
                                  50                      55                      60  
 His Ser His Ser His Gly Ala Trp Phe Leu Ser Pro Val His His Ser  
                                  65                      70                      75                      80

Gln Ile Pro Gln Leu Ala Ala Cys Pro Leu Gln Ser Leu Arg Leu Ser  
                     85                    90                    95  
 Lys Pro Arg Ser Pro Gly Arg Cys Cys Ala Trp Cys Gly Cys Leu Asn  
                     100                    105                    110  
 Cys Glu Pro Phe Lys Trp Leu Pro Ser Pro Arg Arg Trp Pro Gly Ala  
                     115                    120                    125  
 Cys Leu Lys Leu Cys Cys Thr Gln Ala Leu Cys  
                     130                    135

<210> 4109

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4109

Met Gln Asn Gly Ala Asp Trp Leu Phe Pro Pro Gln Leu Tyr Ser Leu  
   1                    5                    10                    15  
 Leu Glu Arg Ile Asn Pro Asp His Ser Phe Pro Val Ser Ser His Cys  
                     20                    25                    30  
 Leu Arg Ala Ala Ala Phe Tyr Val Arg Gly Leu Phe Ser Phe Phe Gln  
                     35                    40                    45  
 Gly Arg Tyr Asn Glu Ala Lys Arg Phe Leu Arg Glu Thr Leu Lys Met  
                     50                    55                    60  
 Ser Asn Ala Glu Asp Leu Asn Arg Leu Thr Ala Cys Ser Leu Val Leu  
                     65                    70                    75                    80  
 Leu Gly His Ile Phe Tyr Val Leu Gly Asn His Arg Glu Ser Asn Asn  
                     85                    90                    95  
 Met Val Val Pro Ala Met Gln Leu Ala Ser Lys Ile Pro Asp Met Ser

100	105	110	
Val Gln Leu Trp Ser Ser Ala Leu Leu Arg Asp Leu Asn Lys Ala Cys			
115	120	125	
Gly Asn Ala Met Asp Ala His Glu Ala Ala Gln Met His Gln Asn Phe			
130	135	140	
Ser Gln Gln Leu Leu Gln Asp His Ile Glu Ala Cys Ser Leu Pro Glu			
145	150	155	160
His Asn Leu Ile Thr Trp Thr Asp Gly Pro Pro Pro Val Gln Phe Gln			
165	170	175	
Ala Gln Asn Gly Pro Asn Thr Ser Leu Ala Ser Leu Leu			
180	185		

&lt;210&gt; 4110

&lt;211&gt; 851

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4110

Met Leu Lys Asp Glu Phe His Leu Lys Phe Phe Met Cys Val Ile Gln
1 5 10 15
Ser Arg Gln Leu Val Arg Thr Pro Gln Arg Thr Ala Gly Glu Ala Ser
20 25 30
Thr Ser Ser Met Leu Ile Pro Lys Pro Pro Pro Lys Thr Asp Ile Leu
35 40 45
Lys Ser Leu Asp Thr Met Asp Asp Pro Asp Thr Val Gly Ser Ile Pro
50 55 60
Val Phe Lys Thr Glu Trp Ile Met Thr His Glu Glu His His Ala Ala
65 70 75 80

Lys Thr Leu Gly Ile Gly Lys Ala Ile Ala Val Leu Thr Ser Gly Gly  
                     85                    90                    95  
 Asp Ala Gln Gly Met Asn Ala Ala Val Arg Ala Val Val Arg Val Gly  
                     100                    105                    110  
 Ile Phe Thr Gly Ala Arg Val Phe Phe Val His Glu Gly Tyr Gln Gly  
                     115                    120                    125  
 Leu Val Asp Gly Gly Asp His Ile Lys Glu Ala Thr Trp Glu Ser Val  
                     130                    135                    140  
 Ser Met Met Leu Gln Leu Gly Gly Thr Val Ile Gly Ser Ala Arg Cys  
 145                    150                    155                    160  
 Lys Asp Phe Arg Glu Arg Glu Gly Arg Leu Arg Ala Ala Tyr Asn Leu  
                     165                    170                    175  
 Val Lys Arg Gly Ile Thr Asn Leu Cys Val Ile Gly Gly Asp Gly Ser  
                     180                    185                    190  
 Leu Thr Gly Ala Asp Thr Phe Arg Ser Glu Trp Ser Asp Leu Leu Ser  
                     195                    200                    205  
 Asp Leu Gln Lys Ala Gly Lys Ile Thr Asp Glu Glu Ala Thr Lys Ser  
                     210                    215                    220  
 Ser Tyr Leu Asn Ile Val Gly Leu Val Gly Ser Ile Asp Asn Asp Phe  
 225                    230                    235                    240  
 Cys Gly Thr Asp Met Thr Ile Gly Thr Asp Ser Ala Leu His Arg Ile  
                     245                    250                    255  
 Met Glu Ile Val Asp Ala Ile Thr Thr Thr Ala Gln Ser His Gln Arg  
                     260                    265                    270  
 Thr Phe Val Leu Glu Val Met Gly Arg His Cys Gly Tyr Leu Ala Leu  
                     275                    280                    285  
 Val Thr Ser Leu Ser Cys Gly Ala Asp Trp Val Phe Ile Pro Glu Cys  
                     290                    295                    300  
 Pro Pro Asp Asp Asp Trp Glu Glu His Leu Cys Arg Arg Leu Ser Glu

305                      310                      315                      320  
Thr Arg Thr Arg Gly Ser Arg Leu Asn Ile Ile Ile Val Ala Glu Gly  
                         325                      330                      335  
Ala Ile Asp Lys Asn Gly Lys Pro Ile Thr Ser Glu Asp Ile Lys Asn  
                         340                      345                      350  
Leu Val Val Lys Arg Leu Gly Tyr Asp Thr Arg Val Thr Val Leu Gly  
                         355                      360                      365  
His Val Gln Arg Gly Gly Thr Pro Ser Ala Phe Asp Arg Ile Leu Gly  
                         370                      375                      380  
Ser Arg Met Gly Val Glu Ala Val Met Ala Leu Leu Glu Gly Thr Pro  
385                      390                      395                      400  
Asp Thr Pro Ala Cys Val Val Ser Leu Ser Gly Asn Gln Ala Val Arg  
                         405                      410                      415  
Leu Pro Leu Met Glu Cys Val Gln Val Thr Lys Asp Val Thr Lys Ala  
                         420                      425                      430  
Met Asp Glu Lys Lys Phe Asp Glu Ala Leu Lys Leu Arg Gly Arg Ser  
                         435                      440                      445  
Phe Met Asn Asn Trp Glu Val Tyr Lys Leu Leu Ala His Val Arg Pro  
                         450                      455                      460  
Pro Val Ser Lys Ser Gly Ser His Thr Val Ala Val Met Asn Val Gly  
465                      470                      475                      480  
Ala Pro Ala Ala Gly Met Asn Ala Ala Val Arg Ser Thr Val Arg Ile  
                         485                      490                      495  
Gly Leu Ile Gln Gly Asn Arg Val Leu Val Val His Asp Gly Phe Glu  
                         500                      505                      510  
Gly Leu Ala Lys Gly Gln Ile Glu Glu Ala Gly Trp Ser Tyr Val Gly  
                         515                      520                      525  
Gly Trp Thr Gly Gln Gly Gly Ser Lys Leu Gly Thr Lys Arg Thr Leu  
                         530                      535                      540

出証特 2 0 0 4 - 3 0 5 9 6 6 0



770	775	780	
Arg Lys Arg Ala Leu Val Phe Gln Pro Val Ala Glu Leu Lys Asp Gln			
785	790	795	800
Thr Asp Phe Glu His Arg Ile Pro Lys Glu Gln Trp Trp Leu Lys Leu			
	805	810	815
Arg Pro Ile Leu Lys Ile Leu Ala Lys Tyr Glu Ile Asp Leu Asp Thr			
	820	825	830
Ser Asp His Ala His Leu Glu His Ile Thr Arg Lys Arg Ser Gly Glu			
	835	840	845
Ala Ala Val			
850			

&lt;210&gt; 4111

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4111

Met Asp Asn Ser Val Arg Val Tyr Pro Glu Thr Leu Gln Glu Thr Phe			
1	5	10	15
Thr Glu Ala Pro Gly Phe Phe Thr Ser Ala Pro Asp Cys Thr Ser Trp			
	20	25	30
Thr Trp Ala Trp Val Pro Val Glu Arg Thr Glu Glu Trp Met Arg His			
	35	40	45
His Leu Thr Gly Pro Ser Pro Leu Ile Ser Pro Gly Thr Gln Asp Ser			
	50	55	60
Leu Ala Cys Ser Cys Cys His Gln Glu Glu Asp Pro Pro Gly Ala Val			
65	70	75	80

His Gly Glu Val Leu Arg Ser Gly Gly Phe Cys Arg Gly Gly Met Trp  
                             85                            90                            95  
 Leu Leu Cys Asp Gly Leu Trp Ala Arg Lys Asp Leu Tyr Leu Pro Arg  
                             100                            105                            110

<210> 4112

<211> 196

<212> PRT

<213> Homo sapiens

<400> 4112

Met Pro Glu Ala Val Asp Val Asp Glu Ser Gln Leu Glu Asn Val Cys  
       1                            5                            10                            15  
 Leu Ser Trp Gln Asn Glu Thr Ser Ser Gly Asn Leu Glu Ser Cys Ala  
                             20                            25                            30  
 Gln Ala Arg Arg Val Thr Gly Gly Leu Leu Asp Arg Leu Asp Asp Ser  
                             35                            40                            45  
 Pro Asp Gln Cys Arg Asp Ser Ile Thr Ser Tyr Leu Lys Gly Glu Ala  
                             50                            55                            60  
 Gly Lys Phe Glu Ala Asn Gly Ser His Thr Glu Ile Thr Pro Glu Ala  
       65                            70                            75                            80  
 Lys Thr Lys Ser Tyr Phe Pro Glu Ser Gln Asn Asp Val Gly Lys Gln  
                             85                            90                            95  
 Ser Thr Lys Glu Thr Leu Lys Pro Lys Ile His Gly Ser Gly His Val  
                             100                            105                            110  
 Glu Glu Pro Ala Ser Pro Leu Ala Ala Tyr Gln Lys Ser Leu Glu Glu  
                             115                            120                            125  
 Thr Ser Lys Leu Ile Ile Glu Glu Thr Lys Pro Cys Val Pro Val Ser

130                      135                      140  
 Met Lys Lys Met Ser Arg Thr Ser Pro Ala Asp Gly Lys Pro Arg Leu  
 145                      150                      155                      160  
 Ser Leu His Glu Glu Glu Gly Ser Ser Gly Ser Glu Gln Lys Gln Gly  
                          165                      170                      175  
 Glu Gly Phe Lys Val Lys Thr Lys Lys Glu Ile Arg His Val Glu Lys  
                          180                      185                      190  
 Lys Ser His Ser  
                          195

<210> 4113

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4113

Met Ser Met Pro Ala Ser Thr Ser Ser His Ile Val Asn Phe Ser Phe  
   1                      5                      10                      15  
 Tyr Lys Ser Cys Cys Gln Gln Ile Gly Leu Phe Leu Lys Pro Leu Ile  
                          20                      25                      30  
 Tyr Ile Phe Leu Phe Leu Phe Glu Phe Ser Cys Ser Cys Gly Trp Leu  
                          35                      40                      45  
 Val Gly Pro Asp Asn Gly Thr Gly Ala Ala Pro Met His Cys Leu Leu  
                          50                      55                      60  
 Phe Phe Leu Phe Phe Ser Asn Phe Phe Phe Leu Phe Pro Phe Leu Phe  
                          65                      70                      75                      80  
 Tyr Thr Phe Ile Phe Phe Phe Ser Leu Leu Phe Ser Trp Arg Trp Phe  
                          85                      90                      95

Pro Pro Pro Leu Phe Leu Asp Arg Ala Gly Leu Gly Arg Gly Thr  
 100 105 110

<210> 4114

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4114

Met Asn Ile Ser Val Lys Ala Val Pro Leu Gly Leu Thr Arg Asp Leu  
 1 5 10 15  
 Ile Ser Val Leu Cys Val Leu Ala Thr Ser Arg Val Arg Ile Ser Ala  
 20 25 30  
 Cys Pro Thr Ala Met Arg Asp Thr Thr Ala Thr Leu Gly Leu Ser Gly  
 35 40 45  
 Glu Ser Val Thr Glu Leu His Gln Asp Gly Ala Leu Pro His Pro Ser  
 50 55 60  
 Ala Cys Gln His Cys Ser Ser Lys Glu Pro Asp Val Thr Cys His Ser  
 65 70 75 80  
 Arg Val Gly Val Ile Leu Trp Val Ser Ser Trp Val Ala Pro Val Arg  
 85 90 95  
 Ala Val Pro Thr Thr Pro Thr Ala Pro Glu Ser Gly Gly Trp His Gln  
 100 105 110  
 Gly Cys Leu Thr Ser Ala Pro Gln Cys Phe Ser Leu Trp Leu  
 115 120 125

<210> 4115

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4115

Met Lys Thr Glu Leu Pro Val Gln Lys Gly Ser Arg Leu Pro Pro Pro

1 5 10 15

Pro Pro Pro Cys Thr Ser Cys Pro Leu Pro Val His Ser Trp Asn Gln

20 25 30

Pro Gly Gln Ala Thr Ser Gly Pro Gln Arg Gln Ala Gly Ser Ser Gly

35 40 45

Pro Ser Arg Gly Arg Leu Glu Gly Leu Ala Asp Arg Phe Pro His Pro

50 55 60

Pro Pro Pro Val Gln Val Phe Ala Ala Val Pro Arg Pro Pro Val Thr

65 70 75 80

Pro Arg Gln Ile Thr Gly His Gln Ala Arg Asp Ser Leu Leu Phe Val

85 90 95

Leu Ser Gly Leu Trp Leu Val Ser Phe Ser

100 105

&lt;210&gt; 4116

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4116

Met Leu Val Gly Cys Met Tyr Val Phe Phe Arg Lys Val Ser Val Arg

1 5 10 15

His Leu Ser Lys Glu Asp Ile Tyr Ala Ala Lys Lys His Met Lys Lys  
 20 25 30  
 Cys Ser Ala Ser Leu Ala Ile Arg Glu Met Gln Ile Lys Thr Thr Met  
 35 40 45  
 Arg Cys His Leu Thr Pro Val Arg Met Ala Ile Ile Arg Lys Ser Gly  
 50 55 60  
 Asn Asn Arg Cys Trp Arg Gly Cys Gly Glu Ile Gly Thr Leu Leu His  
 65 70 75 80  
 Cys Cys Trp Asp Cys Lys Leu Val Gln Pro Leu Trp Lys Ser Val Trp  
 85 90 95  
 Gln Phe Leu Arg Asp Leu Glu Leu Glu Ile Pro Phe Asp Pro Ala Ile  
 100 105 110  
 Pro Leu Leu Gly Ile Tyr Pro Lys Asp Tyr Lys Ser Cys Cys Tyr Lys  
 115 120 125  
 Asp Thr Cys Thr Cys Met Phe Ile Ala Ala Leu Phe Thr Ile Ala Lys  
 130 135 140  
 Thr Trp Asn Pro Pro Lys Arg Pro Thr Met Ile Asp Trp Ile Lys Lys  
 145 150 155 160  
 Met Cys His Ile Tyr Thr Met Glu Tyr Tyr Ala Ala Ile Lys Asn Asp  
 165 170 175  
 Glu Phe Thr Ser Phe Val Gly Thr Trp Met Lys Leu Glu Ile Ile Ile  
 180 185 190  
 Leu Ser Lys Leu Ser Gln Glu Gln Lys Thr Lys His His Ile Phe Ser  
 195 200 205  
 Leu Ile Gly Gly Asn  
 210

&lt;210&gt; 4117

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4117

Met Leu His Lys Asp Ala Leu Cys Ala Arg Arg Arg His Cys Gln Leu

1 5 10 15

Cys Gly Gly Asp Arg Ser Glu Thr Val Ser Leu Glu Asp Leu Leu Gly

20 25 30

Gln Glu Gly Val Ser Asp Glu Ala Gln Gly Arg Leu Gly Arg Ser Val

35 40 45

Gly Phe Gly Ala Gly Ile Ser Glu Phe Trp Pro Val Pro Leu Pro Pro

50 55 60

Pro Val Gln Val Ala Gln Ala Gln Ser Pro Thr Ser Ala Arg Ala Pro

65 70 75 80

Gln Gly Ser Trp Ala His Pro Asn Ser Ser Val Cys Pro Leu Trp Pro

85 90 95

Pro Pro Pro Pro Ala Gly Ser Pro Gly Pro Leu Pro Leu Pro Ala Arg

100 105 110

Leu Pro Cys Ala Ala Trp Asp His Phe Thr Lys Ser Phe Val Phe Gly

115 120 125

Pro Tyr Gly Asn Leu Leu Arg Gln Glu

130 135

&lt;210&gt; 4118

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4118

Met Ile Trp Arg Lys Leu Lys Cys Leu Leu Trp Leu Gln Arg Ser Glu

1 5 10 15

Gly Thr Leu His Ser Trp Leu Asp Arg Leu Asn Ser Gly Ile Gly Glu

20 25 30

Val Val Gly Glu Trp Arg Gly Ala Glu Gly Thr Asp Thr Gly Arg Asp

35 40 45

Ile Ser Lys Asp Cys Gln Gln Gly Met Met Ile Thr Gln Gly Glu Gln

50 55 60

Val Gln Pro Val Ser Trp Cys Cys Pro Glu Leu Met Thr Ala Ile Lys

65 70 75 80

Leu Pro Asp Phe Thr Ala Cys Ser Ala Leu Cys Pro Pro Gly Ile Leu

85 90 95

Gly Thr Phe Ser Arg Leu Gly Pro Gln Gly Arg Leu Glu Ala Ala His

100 105 110

Ser Leu His Cys Gln Ala Leu Ala Gly Gln Trp Ser Trp Gly Glu Gly

115 120 125

Gly

&lt;210&gt; 4119

&lt;211&gt; 325

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4119

Met Leu Leu Phe Ser Leu Trp Tyr Pro Leu Leu Leu Cys Lys Leu Leu